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DRINKING-DRIVING
IN THE PROVINCE OF ONTARIO

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DRINKING — DRIVING IN THE PROVINCE OF ONTARIO

A
Report to the Provincial Secretary for Justice

by
The Inter-Ministerial Committee on
Drinking and Driving

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Committee on Drinking and Driving
Drinking-driving in the Province of
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THE HONOURABLE ROBERT WELCH, Q.C., M.P.P.,
PROVINCIAL SECRETARY FOR JUSTICE,
THE PROVINCE OF ONTARIO.

SIR

We, the members of the Interministerial Committee on Drinking-Driving in Ontario, have the honour of submitting herewith our report.

Chairman

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The editorial staff of the Research and Development Division.

The staff of the Safety Research and Development Section.

PREFACE I

Committee Established

The Justice Cabinet Committee, at a meeting on October 11, 1973, recommended that an inter-ministerial committee be established to examine the applicability of a Phoenix-type programme for Ontario and, if feasible, to develop proposals for a pilot project.

Composition.

The Committee was composed to achieve a wide representation of those provincial government agencies concerned with the problem of drinking-driving. Included on the Committee were representatives of:
The Ministry of the Attorney General
The Ministry of Transportation and Communications
The Addiction Research Foundation of the Ministry of Health
The Ontario Provincial Police

For the preparation of this report, the Committee was supported by a Technical Consultant, Research Staff, and Secretariat advisers.

Terms of Reference

On October 11, 1973, the Committee's terms of reference were expressed as follows:

— To study the Phoenix Driving-While-Intoxicated Re-education Programme and other programmes modelled on it, with a view to assessing their general effectiveness.

— To examine the possible applicability of such a programme within the context of existing legislation in the Province of Ontario.

— If considered feasible, to develop an outline of a pilot project, including proposals for administration, staffing, funding and evaluation criteria.

— To report its findings to the Justice Cabinet Committee

The terms of reference were subsequently expanded:

— To examine the drinking-driving problem in general, with a view to developing, for the Justice Cabinet Committee's consideration, possible courses of action which may: 1) improve development of appropriate new methods; 2) maximize use of available resources; 3) stimulate co-operation and information sharing; and 4) discourage ineffective duplication of effort.

On July 16, 1974 additional terms of reference were articulated.

— To bring together the material contained in the Committee's submission and develop an integrated approach to drinking-driving, using additional information contained in an Addiction Research Foundation report on the social and health costs of alcohol consumption. The objective was to prepare a paper outlining the situation in Ontario, identifying the key issues, and stating the options for Government intervention.

Report

This report is based on these terms of reference. Section A describes the drinking-driving situation in Ontario and Section B outlines some options open to the Government for attacking this problem.

PREFACE II

Despite the recent wave of concern over the non-medical use of psychoactive drugs alcohol misuse is by far the greatest drug problem in Ontario. It has been said that, in many countries, only cancer and cardiovascular ailments exceed alcohol-related health problems in number of victims, in the misery caused to the sufferer and those close to him, and in the economic cost of these conditions to the community as a whole. While it is difficult to fully substantiate such a comparison, the relevant point is conveyed: the problem is a very serious one. In this respect, Ontario is no exception.

In this Province, about 4.5 million persons consume alcoholic beverages with an average consumption exceeding two gallons of absolute alcohol annually. Expressed in beverage alcohol, this per capita average represents approximately 300 bottles of beer, 6 bottles of wine and 12 bottles of distilled spirits. Although a majority of drinkers use alcohol without damage to themselves or others, a substantial proportion consume sufficient amounts to increase their risk of disease and other damaging consequences. Such drinkers are by no means only those persons who seek help in alcoholism treatment centres or other organizations that aim to rehabilitate the alcoholic. A far greater number drink hazardous amounts of alcohol usually without realizing the risks of such consumption. The consequences involve a wide range of health concerns such as liver disease, some cancers, accidents and suicides. In the social sphere, heavy alcohol use often contributes to family breakdown, child neglect and reduced work productivity. While it is difficult to estimate the burden to society that these problems create, there is no doubt that the economic cost exceeds the revenue to Government resulting from the sale of alcoholic beverages.

Clearly, alcohol use can result in a great diversity of harmful consequences. It is safe to conclude that concentration on reducing one type of damage without concurrent efforts to change the prevailing drinking practices in society at large, can only be of limited success in reducing the overall problem of alcohol misuse. In this respect, the most helpful lead is the observation that the rate of many alcohol-related problems in a country is directly related to the per capita level of alcohol consumption in that country; and the corollary that any measures that will diminish the general alcohol consumption will abate the rate of these problems. Such an argument may seem to go against commonsense expectation: it is widely thought that higher consumption in the overall population might be expected to imply an increase in the citizen's enjoyment of alcoholic beverages rather than a raised incidence of alcohol-related casualties. The empirical evidence, however, suggests otherwise. Without exception, nations that have high alcohol consumption levels have the greatest prevalence of alcohol-related illness and social damage.

In Ontario, the trend is clearly toward an overall increase in alcohol use. All available information indicates that this trend is largely attributable to a growing acceptance of alcohol as a part of every day life and to a lack of public awareness of the damaging consequences of alcohol consumption.

Although there is a need for an integrated response to alcohol misuse in this Province, this does not preclude the isolation of specific alcohol-related problems such as drinking-driving. Moreover, there may be definite advantages in isolating this problem from the problem of alcohol abuse generally. Some of these advantages are:

1. While desirable changes in the drinking behavior of the population at large may be difficult to achieve, it is reasonable to expect that the concurrence of drinking and driving may be prevented through appropriate government countermeasures.

2. Government intervention into the drinking-driving problem would likely meet with broad public support. This sentiment is at least in part attributable to the

fact that the drinking-driver not only endangers his own safety but the safety of others.

3. Any attempt to reduce alcohol abuse generally would involve complete and far reaching measures which could only be introduced over a period of time. However, reduction of the drinking-driver problem is a more manageable task involving relatively less complex measures, some of which could be introduced in the near future.

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SECTION A: THE PROBLEM

INTRODUCTION

1. Drinking and Driving

We live in a society which encourages both drinking and driving. Given the nature and prevalence of these two separate activities, it is inevitable that a large percentage of the population will combine them at one time or another.

Prohibiting an activity which is the hybrid of two distinct activities, each of which are widely practiced and seen to be sanctioned by the government, poses as very difficult challenge indeed.

Many agencies in countries all over the world have attempted to remove drivers with alcohol in their bloodstreams from the road. Few have been successful in significantly reducing drinking-driving accidents. Unfortunately, evaluation of these countermeasures has been inadequate and many questions concerning their development and effectiveness remain unanswered.

This report is based on the conviction that the first step in attacking the drinking-driving problem is to provide Ontario with up-to-date knowledge on all aspects of this problem. This undertaking can be enhanced through an upgrading of existing sources of data and the implementation and evaluation of pilot programs.

2. Objectives of the Report

This report has three basic objectives:

- To identify the nature and extent of the drinking-driving problem in Ontario.
- To identify specific areas of action indicated by the nature and extent of the problem.
- To suggest programs which combine the various countermeasures from the specific areas of action identified.

3. Limitations of Existing Data

Most of the information presented in Section A is drawn from the Ministry of Transportation and Communications (MTC) Collision File. This file is based on the Motor Vehicle Collision Report (MVCR) filled out by the police officers who investigate collisions. As with any information from human sources, there is inevitably a degree of incompleteness or inaccuracy. No one could expect a police officer, who is on the scene primarily to aid victims, minimize the public danger, and enforce the law, to collect data with the detail, accuracy and objectivity required for complete analysis. In spite of this defect, the existing data are extensive and useful.

It is pertinent to acknowledge some of the limitations and gaps which do exist. First, the Blood Alcohol Concentration (BAC) of drivers involved in collisions is not routinely taken. In cases where the driver is fatally injured or where the investigating officer suspects the involvement of alcohol there are factors, such as medical condition of the driver, demands of the emergency situation, legal constraints, or a decision by the coroner, which can potentially prevent a breathalyzer analysis or blood test. Second, not all BAC's which are taken reach the MTC Collision File and are therefore not readily accessible. Third, there is no routine record kept of the number of persons (other than drivers) who are killed in alcohol-involved collisions. And finally, no complete baseline data exist showing the number and BAC levels of drinking-drivers present on the road at various times of day and night.

Keeping these limitations in mind, the existing data have been analysed. In the pages that follow, the findings provide the best picture available of the drinking-driving problem in Ontario. Evolving from this is a discussion of the counter-measures which at this stage may be developed and implemented as a first step in finding a solution to a pressing social problem.

SECTION A/PART I

DRINKING, DRIVING AND COLLISIONS

1. The Extent of Drinking in Ontario

a) Alcohol Use in Ontario

In 1972, the latest year for which statistics are available, Ontarians consumed about 10.55 litres (2.3 gallons) of absolute alcohol per adult. The consumption figures for Ontario and the other provinces appear in Appendix A, Table A1. Compared to other countries, this level of conumption places Ontario in the upper half of the known range of consumption levels in the world (Appendix A, Table A2). The average drinker in France or Italy consumes about twice as much, while drinkers in Norway consume slightly more than one half of the Ontario average.

In recent years, alcohol use in Ontario has increased considerably. The traditional temperance orientation which was common in many parts of this province has given way to a more liberal attitude towards alcohol use. Particularly noteworthy is the gradual introduction of many European drinking customs into the Canadian way of life. The higher acceptance of alcohol use is reflected in a number of revisions of liquor laws, e.g., permitting the drinking of alcoholic beverages in an increasing number and variety of establishments; hours of sale for on-and off-premise consumption have been much extended; the legal drinking age has been reduced from 21 to 18 years. Concurrent with these changes, the percentage of users of alcoholic beverages in many segments of the population has increased. In Table 1 some data relating to this trend are shown. Only in rural areas, among the older age groups and the poor do we still find a substantial proportion of abstainers.

The overall increase in consumption has not been brought about by equivalent increases in the use of beer, wine and distilled spirits. Although beer still accounts for most of the alcohol consumption in Ontario, the trend seems to be in the direction of distilled spirits and wine. The sale of these two beverages has increased more rapidly in recent years than the sale of beer, (Appendix A, Table A3).

Alcohol use in Ontario is not characterized by the predominance of one particular drinking pattern but rather by a considerable diversity of customs. Daily drinking, and drinking with meals are still relatively rare. For instance, in a recent survey only 11.2 per cent of all drinkers reported daily use. Home consumption accounts for a larger share of total sales volume of alcohol than drinking in public places.

b) Alcohol Sales in Ontario

In 1973, 167 million gallons of alcoholic beverages were sold in the Province of Ontario. Revenue to the government totalled $327.6 million, which represented 5.4% of the total annual revenue. There is an upward trend toward greater sales in gallons of alcohol, and greater profits realized. (Appendix A, Tables A4 and A5).

2. The Extent of Driving in Ontario

a) Vehicles

In 1972 there were 3.39 million registered vehicles in Ontario. It is quite clear that the number of registered vehicles has been increasing over the last seven years (Appendix A, Table A6). There is no evidence to suggest that the number of registered vehicles will not continue to increase.

TABLE 1,
PERCENTAGE OF DRINKERS AMONG VARIOUS SEGMENTS OF THE CANADIAN POPULATION, 1955 and 1968

POPULATION		PER CENT OF DRINKERS 1955	PER CENT OF DRINKERS 1968
Total Adult Population*		72	80
Sex:	Male	81	86
	Female	62	75
Age:	21 - 29	73	92
	30 - 49	76	89
	50 and over	61	68
Religion:	Catholic	73	85
	Protestant	71	77
Economic Level:	Prosperous	76	88
	Average	72	84
	Poor	66	69
Education Level:	High School or More	74	86
	Less than High School	67	78
Size of Place of Residence :	Population 100,000 and Over	76	86
	10,000 - 99,999	72	77
	Under 10,000 & Farm	----	62

* In 1955 it included persons 21 years and older; in 1968 persons 15 years and older.

SOURCE: 13th Annual Report of the Addiction Research Foundation, 1963 page 81 and Annual Report of The Addiction Research Foundation, 1972, page 32.

b) Drivers

In 1972, there were 3.69 million licensed drivers in Ontario. In 1973, there were 3.84 million (Appendix A, Table A7). The trend over the years is well established: Ontario's driver population is increasing annually.

c) Mileage Driven

An estimate of mileage driven based on tax revenues from gasoline and motor fuel sales for 1973 is 37.8 billion miles (Appendix A, Table A8). As can be seen, the annual mileage travelled in Ontario has been steadily increasing.

3. The Extent of Drinking-Driving in Ontario

The most accurate way of measuring drinking-driving is to randomly sample drivers, and determine their Blood Alcohol Concentration (BAC). A practical and accurate instrument to obtain this measurement is the breathalyzer device.

A comprehensive roadside breathalyzer survey has never been undertaken in Ontario. Therefore, information concerning the extent of drinking-driving by age, sex of driver, time of day, day of week, and month of year, is not available. However, in the spring of 1974, the Canadian Ministry of Transport conducted a roadside breathalyzer survey throughout Canada as part of an international survey of drinking-driving. In Ontario, this survey took place from April 17 to June 8, 1974 and samples were obtained between 10 p.m. and 3 a.m., on Wednesday, Thursday, Friday and Saturday nights, the time when the greatest number of drinking-driving collisions occurs.

The survey consisted of an interview and a breath sample of each driver who was stopped and volunteered the information. In Ontario, this information was gathered at 244 sites, selected randomly within sectors representative of the various aspects of the driving situation.

Although the data are still in the process of being analyzed, a hand search at special request yielded some preliminary findings in Ontario and are presented in Table 2. Of all the drivers who co-operated with the survey, 72.7% had no alcohol in their breath, *20.9% had blood alcohol concentration of up to .08, and 6.4% had blood alcohol concentration of over .08,* which is above the legal limit for driving in Canada. The refusal rate for Ontario is not yet available, however, the national refusal rate of 7% may give an indication of what is to be expected.

4. Alcohol as a Contributory Factor In Collisions

a) Risk of a Collision

In 1964, Borkenstein, et al* reported results of an extensive study on drinking-driving in Grand Rapids, Michigan. They found that high blood-alcohol levels are associated with a disproportionately high risk of collision, as shown in Figure 1.

b) Collision Causation

To adequately determine causality we would have to describe completely the situation immediately preceding each collision. For obvious reasons this is impossible. We have to entertain the notion, therefore, that alcohol-involved collisions result from a combination of causes of which drinking is one. Holcomb (1938) in his study "Alcohol in Relation to Traffic" examined darkness, fatigue, speed and proneness to collisions and concluded that these factors unquestionably exist and in themselves do cause collisions. He added, however, that alcohol will definitely heighten the effect of any or all of these factors. He suggested that, until

---

* *See bibliography for complete reference.*

TABLE 2,
OCCURRENCE OF ALCOHOL IN ONTARIO DRIVERS
(as determined from a 1974 federal roadside survey) *

CONDITION	NUMBER OF DRIVERS TESTED	PERCENTAGE OF DRIVERS TESTED
No Alcohol Present	2270	72.7%
Had Been Drinking (.01 - .08 B.A.C.)	651	20.9%
Impaired (over .08 B.A.C.)	202	6.4%
Total	3123	100.0%

** The survey was conducted April 17 to June 8, 1974; Wednesday, Thursday, Friday and Saturday; 10:00 p.m. to 3:00 a.m.*

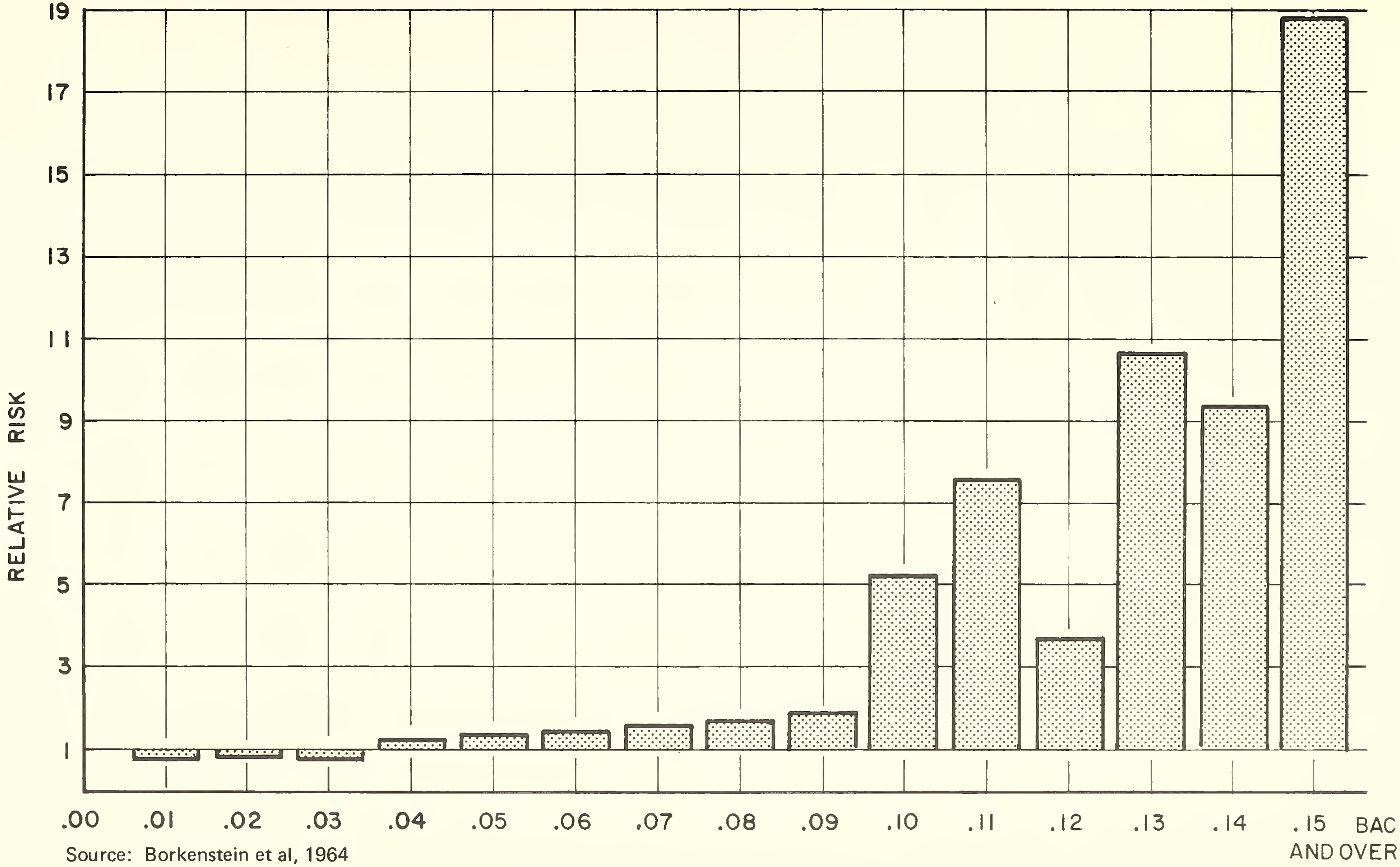
Refusal rate in all of Canada: 7%

Source: Hand Search of Data From Federal Roadside Survey on Drinking and Driving, Road and Motor Vehicle Traffic Safety, Ministry of Transport, Canada, 1974.

Figure 1,

Relative Risk of Being Involved in a Collision For Persons With the Given Blood Alcohol Concentration (BAC)

(as calculated from the Grand Rapids data)



Source: Borkenstein et al, 1964

experimental evidence is presented to prove otherwise, it was logical to accept that alcohol is the major cause in alcohol-involved collisions.

An ingenious study reported by Smith and Popham (1951) "Blood-Alcohol Levels in Relation to Driving", contributed greatly to a clarification of the difficult question of causation. The authors compared the blood alcohol levels of those rated highly responsible for the collision in which they were involved with the levels of those rated as either not responsible or only slightly so. They found that drivers who had been drinking were present in increasingly disproportionate numbers in the group responsible for the collision. This was directly related to BAC levels. The findings became statistically significant in the .03% - .05% BAC range. The unique feature of this research is that it relates driving behaviour, rather than the occurrence of collisions, to the blood-alcohol level of the driver. On the basis of Smith and Popham's findings, we can state now that improper driving behaviour resulting in a collision is more frequent among drinking drivers than among sober drivers. This information constitutes a link in the causality chain of alcohol-involved collisions.

A study by Haddon and Bradess (1959), "Alcohol in the Single Vehicle Fatal Accident", eliminated the difficulty of determining responsibility for a collision. By selecting single-vehicle, non-pedestrian, fatal collisions they circumvented the complexities of multiple causation, since fatally injured persons in this type of collision may be regarded as having been responsible, in most cases, for the collisions which caused their deaths. The very high percentage of positive blood alcohol levels found in this sample contributed additional evidence for a causal relationship between alcohol impairment and the occurrence of collisions.

In conclusion, while collisions involving drinking-drivers may be the result of multiple causes, available evidence suggest that alcohol is the major cause in drinking-driver collisions.

SECTION A/PART II

ALCOHOL-INVOLVED COLLISIONS IN ONTARIO

1. Definitions

A **collision** is defined as an incident involving a motor vehicle which results in personal injury and/or property damage in excess of $200. What is counted as a single collision can involve one or many drivers and/or pedestrians.

A **property damage collision** is one in which property damage is in excess of $200 and in which no one is injured or killed.

A **non-fatal injury collision** is one in which at least one person is injured and in which no one is killed. There may or may not be property damage in excess of $200.

A **fatal collision** is one in which at least one person is killed. There may or may not be non-fatally injured persons or property damage in excess of $200.

A **human-damage collision** is one in which the alcohol status is described as either 'Ability Impaired Alcohol' or 'Had been Drinking'.

An **alcohol-involved collision** is one in which the alcohol status is described as either 'Ability Impaired Alcohol' or 'Had been Drinking'.

The investigating police officer is required to complete a 'Driver/Pedestrian Condition' section on the Collision Report (Appendix C). From the classification options available to the police officer, five categories have been selected which are relevant to the **alcohol status of a collision.** The categories are:

(a) *Apparently Normal* — If all drivers and pedestrians involved in the collision were coded 'normal'.

(b) *Ability Impaired-Alcohol* — If at least one of the drivers/pedestrians involved was coded 'ability impaired-alcohol'.

(c) *Had Been Drinking* — If at least one of the drivers/pedestrians involved was coded 'had been drinking' and none were coded 'ability impaired-alcohol'.

(d) *Not Known* — If all drivers and pedestrians were coded 'not known'.

(e) *Other* — *All others.* (includes a mix of: ability impaired-drugs, fatigue, medical or physical defect, and other).

2. Alcohol-Involved Collisions: Ontario, 1973

a) *Fatal Collisions*

In 1973, 6.6% of all fatal collisions involved one or more drivers/pedestrians categorized as 'ability impaired-alcohol', 20.9% were categorized as 'had been drinking'. Thus 27.5% of all fatal collisions in 1973 were alcohol-involved collisions. (Appendix A, Table A9).

b) *Non-Fatal Injury Collisions*

In 1973, 5.3% of all non-fatal injury collisions involved one or more drivers/pedestrians categorized as 'ability impaired-alcohol', 13.7% were categorized as 'had been drinking'. Thus 19.0% of all non-fatal injury collisions in 1973 were alcohol-involved collisions (Appendix A, Table A10).

— *c) Property Damage Collisions*

In 1973, 4.0% of all property damage collisions involved one or more drivers/ pedestrians categorized as 'ability impaired-alcohol', 8.0% were categorized as 'had been drinking'. Thus, 12.0% of all property damage collisions in 1973 were alcohol-involved collisions (Appendix A, Table A11).

3. Alcohol-Involved Collisions: When?

a) Time of Year

The largest proportion of alcohol-involved, human-damage collisions occur during the second half of the year. The pattern of alcohol-involved human-damage collisions closely follows that of all human-damage collisions (Appendix A, Table A12, Appendix B, Figures B1 and B2).

b) Time of Week

Alcohol-involved, human damage collisions, occur predominately on Fridays, Saturdays and Sundays. This is in contrast to the pattern for all human-damage collisions which is more evenly distributed throughout the week. (Appendix A, Tables A13 and A14; Appendix B, Figures B3 and B4).

c) Time of Day

Alcohol-involved, human-damage collisions, occur predominately in the late evening/early morning hours. This is in contrast to the pattern for all human-damage collisions which peak in the early evening hours. (Appendix A, Tables A15 and A16; Appendix B, Figures B5 and B6).

4. Alcohol-Involved Collisions: Where?

Alcohol-involved human-damage collisions are not evenly distributed across Ontario. Certain counties, districts and regional municipalities have higher percentages of alcohol-involved collisions than others and there is considerable variation in their alcohol-involved collision rates. (Appendix A, Table A17). This information is an important prerequisite for planning enforcement or other countermeasure activities.

5. Alcohol-Involved Collisions: Who?

The condition of drivers' classification referred to in Appendix A, Tables A18 and A19, cover the condition of each and every driver involved in a collision. Consequently, there will be more drivers than collisions, which is why the 'condition of drivers' and 'collision' data will not agree.

a) Drivers in Fatal Collisions

In 1973, 12.7% of drivers involved in fatal collisions were categorized by the investigating police officer as 'ability impaired-alcohol', 12.8% were categorized as 'had been brinking'. Thus, a total of 25.5% of drivers involved in fatal collisions in 1973 can be categorized as drinking-drivers (Appendix A, Table A18).

b) Drivers in All Collisions

In 1973, 2.7% of drivers involved in all collisions were categorized as 'ability impaired-alcohol', 6.2% were categorized by the investigating police officer as 'had been drinking'. Thus, a total of 8.9% of drivers involved in all collisions in 1973 can be categorized as drinking-drivers. (Appendix A, Table A19).

6. Age of Drinking-Drivers in Collisions

Data since 1967 indicate that young drivers are assuming a proportionately higher representation in alcohol-involved collisions (see Figure 2, and Appendix A, Table A20).

In terms of the absolute numbers of drinking-drivers involved in collisions it can be seen in Figure 3 that the absolute numbers of drinking-drivers involved in collisions have increased annually since 1970, increases being greater for drivers below age 35.

In order to investigate further the role of age in drinking-driving collisions it is necessary to consider what proportion of drivers in all collisions were categorized as 'ability impaired-alcohol' or 'had been drinking'. Figure 4 indicates that:

— for drivers aged 25 years and older the proportions have remained relatively constant during the period, 1970 - 1973.

— for the 16 - 19 and 20 - 24 age groups there has been a sharp increase in the proportion of drinking-drivers in all collisions since 1970. The increase is more evident in the 16 - 19 age group. These increases may be associated with the lowering of the legal drinking age from 21 to 18 which occurred in mid-1971.

7. Notes of Caution

In the absence of any alcohol consumption data later than those of 1968 (Table 1), it is not clear whether the high level of alcohol-involved collisions simply reflect higher rates of alcohol consumption among the younger age groups, or is associated with the interaction of inexperienced drinking and inexperienced driving.

The data in Figure 4 are based on total collisions (fatal, non-fatal injury, and property damage), include male and female, and are grouped in ages which do not correspond perfectly with the age group affected by the lowering of the drinking age.

The data required to determine the effects of lowering the drinking age are those separating age in one year intervals, sex, and accident type (fatal, non-fatal injury and property damage) by alcohol involvement. These data are in the process of being acquired and will help to clarify the situation.

Further, as 1974 data become available it will be easier to determine whether the trend is peaking or continuing on an upward course.

8. Dead Drivers

The classification of the alcohol status of dead drivers in the MTC files is derived from the Blood Alcohol Concentration (BAC) information that is routinely forwarded to MTC. In 1973, BAC levels were forwarded for 58% of Ontario's dead drivers. Where no BAC was recorded, but where the investigating police officer made a judgement as to the presence of alcohol, this judgement was recorded in place of the BAC.

Recent criticism of the use of figures relating to alcohol in dead drivers obliges us to look at these data carefully.

The percentage of dead drivers who had been drinking in 1973 is 51.2%. This figure is made up of 15.6% classified as 'had been drinking', and 35.6% classified as 'ability impaired-alcohol' (Appendix A, Table A21).

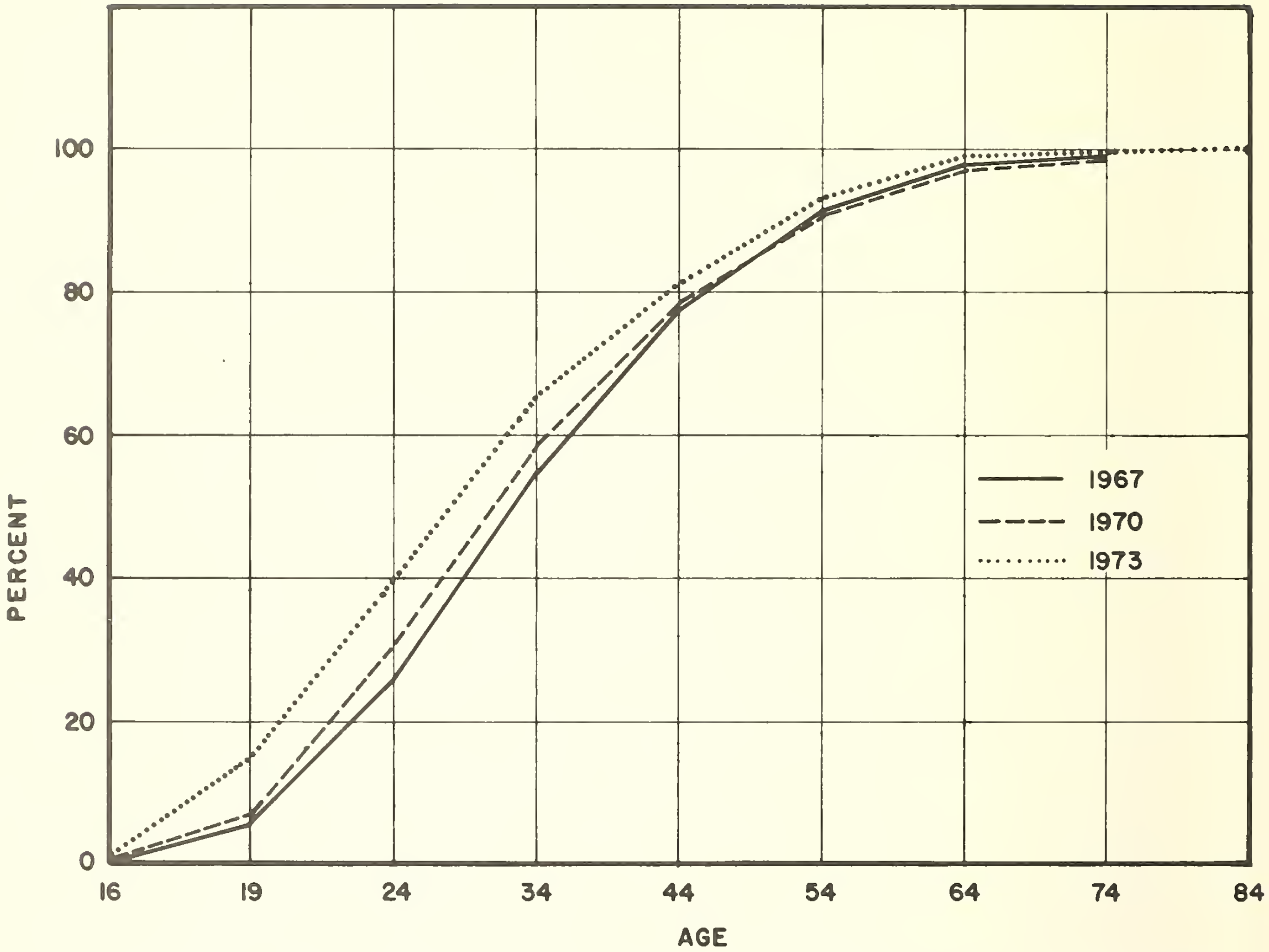


Figure 2,

Cumulative Age Distribution of Drinking Drivers who were Involved in Collisions in 1967, 1970 and 1973 Ontario

Source: Highway Traffic Collisions 1967, 1970 and 1973
Ministry of Transportation and Communications, Ontario

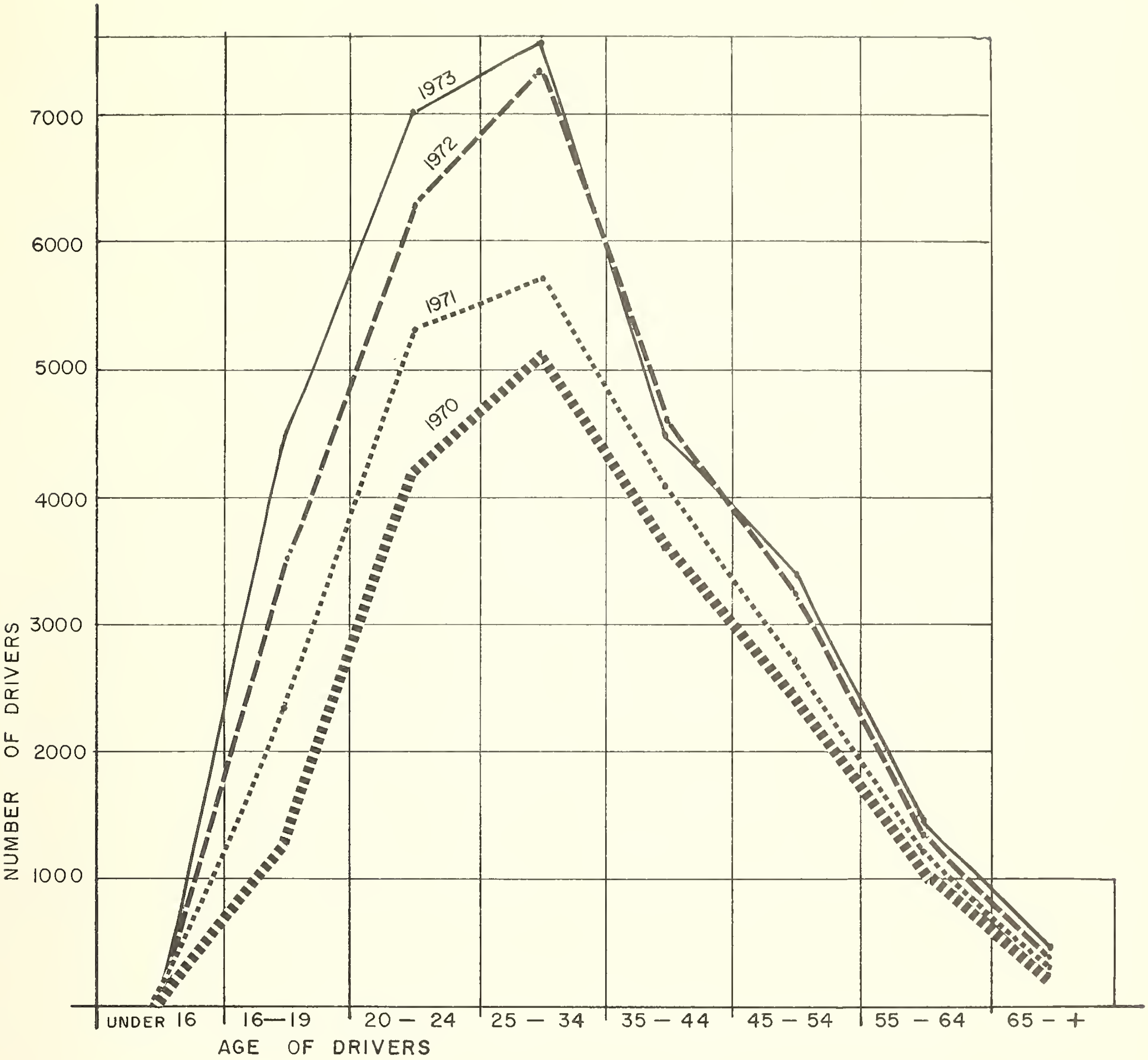


Figure 3,
Age Distribution of Drinking Drivers Involved in Collisions in Ontario, 1970-1973

Source: Highway Traffic Collisions, 1970, 1971, 1972,
1973 Ministry of Transportation and Communications

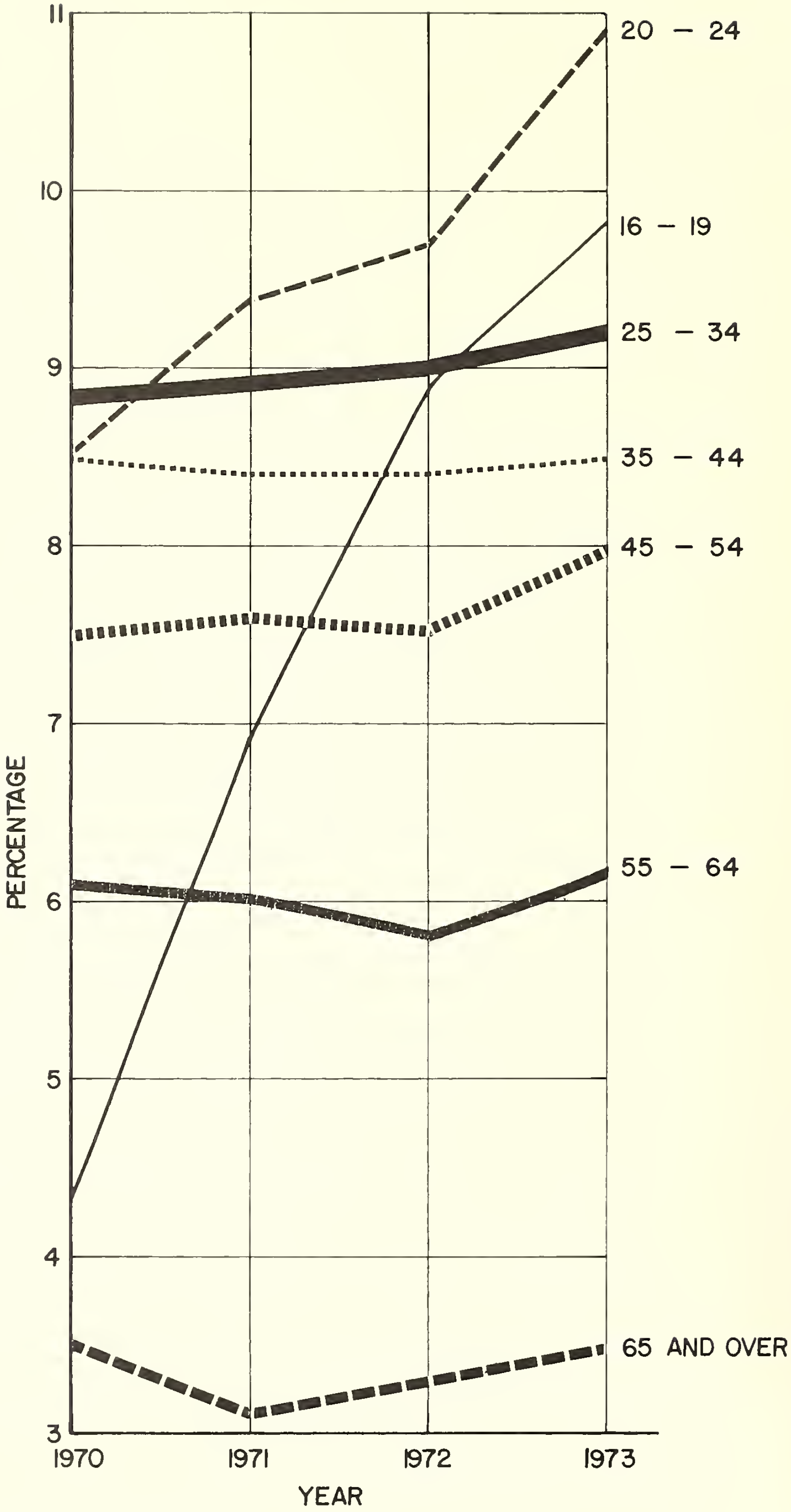


Figure 4,
The Percentage of Drivers of a Given Age Group Involved in Collisions, Who Were Involved as Drinking Drivers, in Ontario, 1970-1973
(Drinking Drivers in All Collisions/All Drivers in All Collisions)

To remove any subjective bias in the information provided by investigating police officers, a hand search of the Chief Coroner's File was undertaken. The files of dead drivers, for whom no BAC was recorded in the MTC files, were examined for BAC information. The combined sources, the MTC Collision File and the Chief Coroner's File yielded BACs on 75% of all dead drivers in 1973.

A variety of reasons exist for the incomplete data. One of these is that if the driver lives for several hours after the accident, he will have metabolized all or part of the alcohol in his system, and administering a blood test would not be meaningful.

Based on hard BAC data for 1973, 32.4% of all dead drivers had BACs of more than .08, and 7.8% had BACs of up to .08. It is probable that at least some of the drivers classified as 'not known' had been drinking. (Table 3).

As an aside, it is informative to note that police judgements were compared with the results of laboratory analyses of blood samples. It was found that the police judgement with respect to the presence or absence of alcohol was usually correct. However, the degree of impairment was often under-estimated by the police (Appendix A, Table A22). This would tend to support the validity of the MTC data.

9. Distribution of BAC levels in Dead Drivers

A distribution of BAC levels was obtained from the 40.3% of dead drivers having positive BACs in 1973. Inspection of Figure 5 reveals that very few of these dead drivers had BACs of .08 or less. A very large number of them had BACs which indicated a very high degree of drunkenness.

10. BAC Data — Live and Dead Drivers

A comparison of data from the Federal Roadside Breathalyzer Survey (Table 2) with BAC data on Dead Drivers (Table 4) indicates that while 6.4% of live drivers tested had BACs greater than .08, 43% of dead drivers tested had BACs greater than .08. While 20.9% of live drivers had BACs up to .08, 10.5% of dead drivers had BACs in the same range. These data would tend to support the hypothesis that impaired driving is a major causative factor in fatal collisions.

11. Summary

Part II has discussed briefly many of the factors relevant to understanding the nature and extent of the drinking-driving problem in Ontario. A relatively clear picture emerges.

Of the drinking-drivers in all collisions in Ontario since 1970, there has been a dramatic increase in the proportion belonging to the 16 - 24 age group. More young drinking-drivers are becoming involved in collisions.

Apparently the greater the human damage caused by a collision, the greater is the likelihood that alcohol was a factor in that collision. Of fatal collisions, the greatest in degree of human damage, over one quarter of them had alcohol as a factor. Of the drivers who were killed in motor vehicle collisions at least 37% and perhaps 43% were driving with a BAC greater than .08%, while of all drivers on the road during the high collision periods, 6.4% have a BAC greater than .08%.

The heaviest concentration of alcohol-involved human damage collisions is during the late evening/early morning hours, late in the week, and during the second half of the year.

TABLE 3,

OCCURRENCE OF ALCOHOL IN FATALLY INJURED DRIVERS BY SEX FOR ONTARIO, 1973

(Results of Laboratory Analysis)

SEX	ALCOHOL NOT PRESENT		ALCOHOL PRESENT						NOT KNOWN		TOTAL	
			HAD BEEN DRINKING		IMPAIRED		TOTAL					
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	231	32.6	59	8.3	251	35.4	310	43.7	168	23.7	709	100
Female	58	48.3	6	5.0	16	13.3	22	18.3	40	33.3	120	100
Total	289	34.9	65	7.8	267	32.4	332	40.2	208	25.1	829	100

**Laboratory analysis not available*

Source: Ministry of Transportation and Communications, Ontario, Collision File and Chief Coroner's File, Ontario.

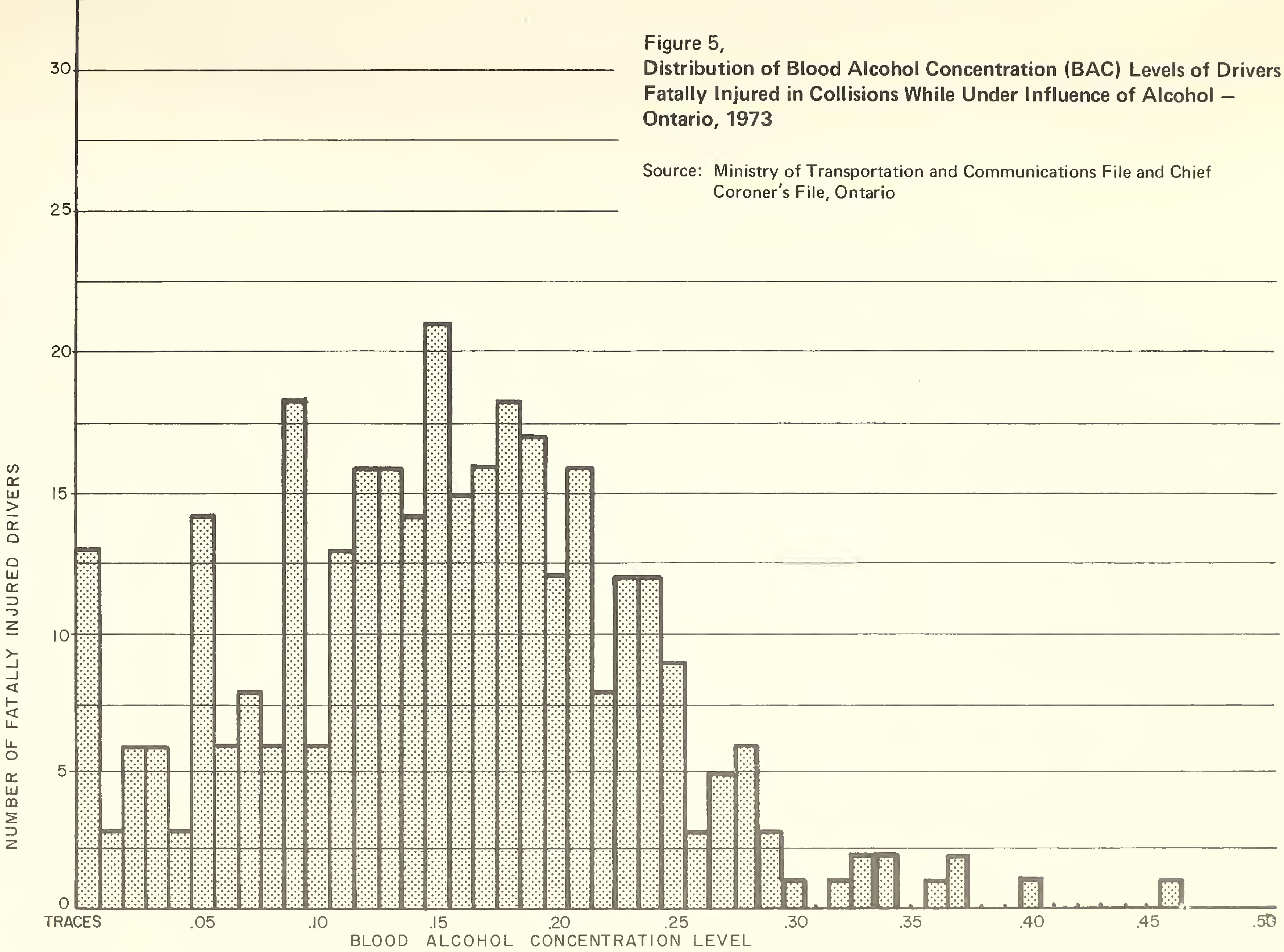


Figure 5,
Distribution of Blood Alcohol Concentration (BAC) Levels of Drivers Fatally Injured in Collisions While Under Influence of Alcohol — Ontario, 1973

Source: Ministry of Transportation and Communications File and Chief Coroner's File, Ontario

TABLE 4,
OCCURENCE OF ALCOHOL IN FATALLY INJURED DRIVERS ONTARIO 1973*
Results of Laboratory Analysis

CONDITION	NUMBER OF DRIVERS	PERCENTAGE OF DRIVERS
No Alcohol Present	289	46.5
BAC trace to .08	65	10.5
BAC .09 or more	267	43.0
Total	621	100%

* *Cases for which laboratory analysis is not available are not included.*

SOURCE: Ministry of Transportation and Communications, Ontario, Collision File and Chief Coroner's File, Ontario.

SECTION A/PART III

DRINKING-DRIVING LAWS IN ONTARIO

1. Introduction

This section describes drinking-driving legislation as it applies in Ontario. In examining these laws and penalties, the federal nature of the Canadian Constitution must be kept in mind. The substantive offences of driving while impaired etc., fall under the jurisdiction of the federal government and are found in the Criminal Code of Canada. However, the enforcement of these offences and the subsequent loss of driving privileges are in general within the purview of provincial jurisdiction.

2. Criminal Offences

The Criminal Code of Canada (CCC) creates three offences under the heading of drinking and driving.

> Section 234, IMPAIRED DRIVING (or care or control)
>
> Every one who, while his ability to drive a motor vehicle is impaired by alcohol or a drug, drives a motor vehicle or has the care or control of a motor vehicle, whether it is in motion or not, is guilty of an indictable offence or an offence punishable on summary conviction and is liable;
>
> (a) for a first offence, to a fine of not more than five hundred dollars and not less than fifty dollars or to imprisonment for three months or to both;
>
> (b) for a second offence, to imprisonment for not more than three months and not less than fourteen days; and
>
> (c) for each subsequent offence, to imprisonment for not more than one year and not less than three months.
>
> Section 236, DRIVING (or having care or control) WITH MORE THAN 80 MG. OF ALCOHOL IN 100 ML. OF BLOOD
>
> Every one who drives a motor vehicle or has the care or control of a motor vehicle, whether it is in motion or not, having consumed alcohol in such a quantity that the proportion thereof in his blood exceeds 80 milligrams of alcohol in 100 millilitres of blood, is guilty of an offence punishable on summary conviction and is liable to a fine of not less than fifty dollars and not more than one thousand dollars or to imprisonment for not more than six months, or both.
>
> Section 235 (2), FAILING OR REFUSING TO PROVIDE A SAMPLE OF BREATH FOR ANALYSIS
>
> (1) Where a peace officer on reasonable and probable grounds believes that a person is committing, or at any time within the preceding two hours has committed an offence under section 234, he may, by demand made to that person forthwith or as soon as practicable, require him to provide then or as soon thereafter as is practicable a sample of his breath suitable to enable an analysis to be made in order to determine the proportion, if any, of alcohol in his blood, and to accompany the peace officer for the purpose of enabling such a sample to be taken.
>
> (2) Every one who, without reasonable excuse, fails or refuses to comply with a demand made to him by a peace officer under subsection (1) is guilty of an offence punishable on summary conviction and is liable to a fine of not less than fifty dollars and not more than one thousand dollars or to imprisonment for not more than six months, or both.

This legislation empowers a peace officer to demand a sample of breath from certain persons under certain circumstances as described in s. 235 (1), and a person who fails or refuses to comply with such a demand is subject to prosecution for that failure or refusal under s. 235 (2). If that person complies with the demand, and is subsequently charged under s. 236, the result of the analysis of the sample of breath he provided will form the basis of the Crown's case against him. If he is charged under s. 234, the result of the analysis of the sample of breath he provided, although not the basis of the charge, will be evidence on which the Crown will be placing considerable reliance.

Often a police officer will charge an accused with more than one of the above mentioned offences, leaving to the Crown Attorney's discretion which charge or charges he will proceed with.

3. Penalties

a) Fine

On a charge under s. 234 of the Code, the Crown has the right to elect to proceed by way of indictment rather than by way of summary conviction. However, the minimum and maximum fines that may be imposed are the same regardless of which procedure the Crown elects to follow. For a first offence, the accused is liable to a fine of not more than five hundred dollars and not less than fifty dollars. No provision is made for the imposition of a fine on a "second", "third" or "subsequent" offence.

On a charge under either s. 235 (2) or 236, the Crown has no election; the offence is punishable only on summary conviction. Upon conviction a person is liable to a fine of not less than fifty dollars and not more than one thousand dollars. No special provision is made for subsequent offences.

b) Imprisonment

Upon conviction under s. 234, a person is liable, for a first offence, to imprisonment for up to three months in addition to or instead of the imposition of a fine. For a second offence, the accused is liable to imprisonment for not more than three months and not less than fourteen days. For third and subsequent offences, the accused is liable to imprisonment for not more than one year and not less than three months. Whether the Crown proceeds summarily or by way of indictment, the liability of imprisonment is the same.

Whenever the Criminal Code provides special penalties for "second" or "subsequent" offences one must consider a provision of the Code which provides that before an offender may be dealt with on the basis of a "second" or "subsequent" offence two prerequisites must be shown to have occurred.

First, it must be shown that the accused was notified in advance of his trial that the Crown intends to seek a greater penalty on the basis of a previous conviction or convictions.

Second, it must be proven that the previous conviction or convictions exist(s) against the same accused, either by admission of the accused or by other proof.

Once the Crown has proven these two facts, the judge must sentence the accused to the relevant minimum jail term.

In discussing imprisonment, it should be kept in mind that the Criminal Code provides that if the sentence of imprisonment does not exceed 90 days, the judge may order that the sentence be served intermittently, for example, on weekends or at night.

c) Prohibition From Driving and/or Suspension of Driver's Licence

Section 238 of The Criminal Code of Canada provides that:

> Where an accused is convicted of an offence . . . under section 234, 235 or 236 the judge, may, in addition to any other punishment that may be imposed for that offence, make an order prohibiting him from driving a motor vehicle in Canada at all times or at such times and places as may be specified in the order . . . during any period not exceeding three years.

In Ontario, section 21 of The Highway Traffic Act provides that the driver's licence of any person convicted of an offence under sections 234, 235 (2) or 236 of The Criminal Code is thereby suspended:

> (a) upon the first offence, three months, but where injury to or the death of any person or damage to property occurred in connection with the offence, six months;
>
> (b) upon any subsequent offence, six months, but where injury to, or death of any person or damage to property occurred in connection with the offence, one year.

This automatic provincial suspension applies whether or not the judge prohibits the offender from driving under section 238 of The Criminal Code, provided that, if an order is made under subsection 1 of section 238 of The Criminal Code prohibiting a person from driving a motor vehicle for any longer period, the licence shall remain suspended during such longer period. In 1973, 35,282 driving licences were suspended under the H.T.A. 3.365 persons were prohibited from driving by a Court (Appendix A, Table A23, A24).

Both the Court's prohibition and a portion of the province's suspension are subject to provisions whereby in certain circumstances the prohibition or suspension will only be in effect for certain hours of the day or certain days of the week as in the case, for example, where loss of a driver's licence would mean loss of an offender's job. These exemptions are in the first case at the discretion of the judge and in the second instance at the discretion of the Ontario Minister of Transportation and Communications.

4. Drinking and Driving Laws in Other Provinces

Provincial legislation is not uniform throughout Canada. Some provinces have legislation similar to that in Ontario insofar as that legislation creates an automatic suspension of the driver's licence upon conviction. In other provinces there is no provision for such a suspension. There are also variations in the legislation of other provinces in respect to the following questions:

— the length of the suspension;

— whether the automatic suspension, if any, applies upon conviction under any one of ss. 234, 235 (2) or 236. In some provinces it applies only upon conviction under s. 234; or s. 236 but not to convictions under s. 235 (2); whereas in Ontario, for example, it applies to conviction on any one of the three offences;

— whether there is a longer suspension for a second conviction;

— the definition of a "second conviction";

— whether the suspension can be stayed on appeal;

— whether there is a review board or other authority to whom an application can be made for relief prior to the expiry of the suspension;

— whether the Registrar (or other comparable official) or the Court has any additional discretionary power to suspend.

5. Other Related Statutory Provisions

It should be noted that alcohol may be a contributing factor in the commission of other driving offences under The Criminal Code, i.e., dangerous driving, criminal negligence in the operation of a motor vehicle, and failing to remain at the scene of an accident. In addition, alcohol is often a factor in the commission of offences under the Highway Traffic Act.

SECTION A/PART IV

ENFORCEMENT

1. Introduction

The Ministry of the Solicitor General recognizes the need for selective traffic enforcement. This involves taking enforcement action against those violations that are causing traffic collisions at locations and times where they are occurring. There are five considerations which govern this policy:

- Where, geographically, are the collisions taking place?
- With what frequency are collisions taking place?
- When are collisions occurring (day and time of day).?
- What specific violations of the law are causing the collisions?
- What amount of enforcement is required to achieve a reduction in the present frequency of collisions?

The Objectives of selective traffic enforcement are as follows:

- To enhance the smooth efficient movement of vehicular traffic.
- To increase the safety and security of the general public.
- To stimulate public support for law enforcement activities.
- To reduce human error.
- To improve driver attitudes.
- To reduce death, injury and loss of property.

a) Principles of Selective Traffic Enforcement

Since it has been established that most collisions are the result of driver behaviour and generally involve some violation of the law, it is obvious that enforcement action is required. The question of what constitutes the right amount of enforcement so as to meet determined requirements, yet not be oppressive, must be determined for each District, Detachment, or Municipality based on its particular problems.

The right amount of enforcement required is that which will create a measurable increase in the general compliance with traffic laws and regulations, and which will reduce the number of collisions occurring in a given area. The amount of enforcement required will be affected by the kind of community, character of traffic, and other factors.

The nature and objectives of selective traffic enforcement raise several questions in relation to the problem of drinking and driving. How can the amount of enforcement be measured? What is the ideal relationship between amount of enforcement of sections 234, 235 and 236 of the Criminal Code of Canada and collisions involving impaired drivers?

Under the present system there are several constraints on the amount of enforcement possible:

- The resources that can be allocated to the enforcement of sections 234, 235 and 236 of CCC in terms of police salaries

- The numbers of defendents who can be processed through the courts, given the present size and staffing and workload of the courts

- The amount of time a police officer can spend in court, rather than on the road

- The number of convicted persons who are sent to prison, given the present capacity and staffing of prisons

- The amount of enforcement activity which would be regarded as legitimate by the public

- The percentage of time that the police can allocate to specifically enforce sections 234, 235, 236. Since the task of the traffic police is to enforce all the provisions of the Highway Traffic Act (HTA) and relevant sections of the CCC, a disproportionate amount of time spent on one section may give rise to excessive violations of others and therefore possible collisions due to other causes.

Since there is a limit to the amount of enforcement which can be directed at drinking-drivers, it is essential that a selective enforcement strategy utilize all available information to permit effective allocation of limited resources.

2. Planning of Enforcement Strategy

To plan a detailed enforcement strategy using all available information it is necessary to consider the sources and form of that information.

a) OPP Detachment or Municipal Data

Much of the necessary information is collected at the local OPP detachment and the municipal level. This includes times and locations of alcohol-involved collisions, times and locations of apprehension of drinking-drivers, and BAC levels for fatalities and apprehended drivers.

b) Central Collection of Data

A number of separate agencies keep files of information relevant to enforcement. The agencies include: The OPP, the Municipal Police, the Centre of Forensic Sciences, the Provincial Coroner and MTC. These agencies store information in a form consistent with their particular usage of it. The disparities in form create problems in collecting and analysing this information centrally.

Centralized analysis is further complicated by the fact that the OPP and the Municipal Police do not necessarily collect the same data, or combine these data routinely. Therefore, complete data are not available from any single source.

c) Type of Information Required

In the development of an effective enforcement strategy many factors must be considered. Listed below are examples of the kind of information needed to develop such a strategy.

- Month of year (Appendix B, Figures B1 and B2), day of week (Appendix B, Figures B3 and B4), and time of day (Appendix B, Figures B5 and B6) of alcohol collisions by type. Fatal and non-fatal injury alcohol-involved collisions occur primarily during the latter half of the year, towards the end of the week, mostly in the late evening and early morning hours.

- The number and percentage of drivers who had been involved in collisions according to alcohol involvement. For 1973 alcohol was judged as a factor in 27.5%

of all fatal collisions, 19% of non-fatal injury collisions and 12% of property damage collisions (Appendix A, Tables A9, A10 and A11).

— The number and percentage of fatal and non-fatal alcohol-involved collisions by district, regional municipality or county, (Appendix A, Table A17) indicates the distribution of alcohol fatal and non-fatal injury collisions across Ontario. For even smaller geographical areas, this information is potentially available.

— The number of breathalyzer interviews and charges under sections 234, 235, 236 CCC for Ontario. (Appendix A, Table A23 columns b and c).

— The number of impaired drivers apprehended under sections 234, 235, 236 CCC, per impaired driver involved in a collision, (Appendix A, Table A26 Column f).

— The percentage of all licensed drivers who were interviewed and charged under sections 234, 235, 236 CCC, (Appendix A, Table A25 Column e).

These data generate information such as the following:

— that for 1973 1.19% of all licensed drivers were interviewed and 1.08% of all licensed drivers were charged.

— that the number of interviews and charges per licensed driver has more than doubled over the past 5 years. It should be noted that the number of breathalyzers has been increasing over these years.

— that the number of impaired drivers involved in collisions per licensed driver has increased from 4,020 in 1969 to 8,707 in 1973

— that the number of impaired drivers apprehended per impaired driver-involved in a collision is increasing. For 1973, 4.78 impaired drivers were apprehended for every impaired driver-involved collision.

— that the percent of licensed drivers who were involved in collisions while impaired has increased from .12% in 1969 to .23% in 1973

— OPP data (which excludes municipal police data) obtained for charges under sections 234, 235 and 236 CCC by month indicate that the timing of enforcement by month does not correspond well with alcohol-involved collisions by month. (Appendix B, Figure B7). It should be noted, however, that OPP charges are being compared with all alcohol-involved collisions, i.e., those within and outside OPP jurisdiction.

3. Conclusions

Although some improvement in the collection and integration of charge and collision data required, there is adequate information available to plan and evaluate enforcement strategies in general terms. Specific information for specific areas can be easily obtained.

It is evident that new approaches to enforcement are required. Even though enforcement of sections 234, 235, 236 CCC has increased over the last five years, so has the amount of impaired driving per licensed driver. Current modes of enforcement are not reducing the increasing incidence of drinking and driving.

SECTION A/PART V

THE COST OF DRINKING-DRIVING

1. Costs to Offender

a) Uninsured Fee

In order to be registered in Ontario a motor vehicle must either be insured for third party liability or the driver must pay an Uninsured Fee of $40.00. Payment of this fee gives permission to operate the vehicle with no insurance coverage. In case of a collision where the uninsured driver is responsible, his driver's licence will be suspended until he pays all damage claims or makes arrangements to do so. Three percent of the vehicles registered in Ontario were not insured in 1973 and were registered only after payment of the Uninsured Fee.

b) Insurance

A driver convicted under the Criminal Code of Canada for a drinking-driving offence (section 234, 235 or 236) will incur substantial insurance costs if he retains his automobile insurance. First, his premium rates for third party liability and collision coverage will be least double. Second, the amount of third party liability coverage available to him may be reduced, and third, his insurance coverage for personal injuries and damages to his own car, may be null and void should he be responsible for a collision at the time charged.

The degree of requital exacted by the insurance company depends largely on its particular underwriting practices. There are, however, three basic questions which are usually taken into account in determining post-conviction premium rates and coverage:

- Collision Causation: Was the convicted driver also involved in a collision for which the insurer has to pay claims?
- Previous Claims: How many claims has the insurer paid for this driver over the past 3 years?
- Driving Record: How many convictions for driving offences has the driver had in the past 3 years?

In the case where a driver with no convictions or claims in the past three years is convicted of a drinking-driving offence which involved no collision, a surcharge of 100% would be added to his current premium rates. This increase would remain in effect for three years. If this same driver had been convicted of traffic violations, or was held responsible for an automobile collision, over the past three years the insurer might classify him as a high risk and refuse to provide third party liability coverage of more than $50,000.

The situation becomes even more costly if the convicted driver was also involved in a collision while impaired for which he is held responsible. He will lose any no-claim discounts he had earned for collision-free driving and will be required to pay the basic rates plus a 100% surcharge for third party liability and collision coverage. This will almost triple his yearly premiums.

With regard to claims arising out of the collision, the insurer may legally refuse to pay claims for the driver's medical care, his own car damages, and his income loss due to disability — even though he was covered for these expenses. The coverage is rendered void by a conviction for refusing to provide a breath sample (section 235) or for impaired driving (section 234 or 236) at the time of the collision. In addition, the insurer may reduce the convicted driver's third party liability coverage to $50,000.

Expressing these insurance expenses in terms of dollars illustrates the magnitude of the increases. A 25-year old married male driver, with a good driving record, who has standard coverage (Third party liability: $500,000, Collision: $100 deductible, Accident benefits, and Comprehensive) normally pays an annual premium of around $199.* After his first conviction for a drinking-driving offence his premium will increase to about $398. a year. At the end of three years he will have paid out a total of $1,194 for insurance — $597 more than it would have cost him without the conviction.

If this driver had been responsible for a collision at the time he was charged and subsequently convicted his insurance costs would have tripled. At the end of three years he will have paid out $1,770, and his third party liability coverage probably will have been only $50,000. In addition, he would have had to repair his own car, pay any medical expenses not covered by the Ontario Health Insurance Plan, as well as bear all wage losses due to time off work.

c) Legal Costs

Legal costs to an individual charged under Sections 234, 235 and/or 236, vary depending on the following factors:

1/ the lawyer he retains;

2/ whether he pleads guilty or not guilty and whether he appeals the Provincial Court's decision; and

3/ the amount of time spent by the lawyer on his particular case.

The following figures will give an idea of the costs involved: However, this information was obtained informally and is to be treated only as a guideline.

	Legal Aid Tariff	**Usual Regular Fee**
Plea of Guilty	$125	$150 - 300
Plea of Not Guilty	$200	$250 - 600
Appeal from Provincial Court to County Court	$300	$350 - 800

Legal aid is not usually given to an individual charged with a drinking-driving offence unless he can prove that he needs his car to earn his living. If an individual qualifies for legal aid the government pays the lawyer who takes the case the appropriate fee minus 25%.

d) Other Costs

In addition to insurance and legal costs incurred by an individual who is convicted of a drinking-driving offence there are a number of other costs involving money, time, inconvenience, job opportunities and social life. These costs begin the moment an individual is stopped on suspicion of impaired driving and continue long after he is convicted.

To begin with the individual's journey is interrupted. If he is charged, he must either have someone drive him home or take a taxi. Before he gets his car back he may have to pay a towing fee.

A trial for a drinking-driving offence usually involves three court appearances. This may mean wage losses as well as inconvenience and the disapprobation of his employer and colleagues. His witnesses may also have to take time off work

* Based on rates in Thunder Bay as of August, 1974.

and this may create a social strain as well as an additional expense.

When a driver is convicted of a drinking-driving offence for the first time he may be required to pay a fine, usually $100-$250 depending on the judge and provided no motor vehicle collision was involved. (See Section A/Part III on Drinking and Driving Laws in Ontario.) His licence is automatically suspended for at least three months. Aside from causing inconvenience, this suspension may alter his style of life, and if his job involves driving he may lose it. On top of all this he will have a criminal record. Apart from the social stigma of having a criminal record, his job opportunities will be limited, and he may have difficulty getting visas or work permits for other countries.

Another aspect of the cost, the fact that the whole experience is often traumatic and humiliating, should not be overlooked. The individual will face uncertainty and apprehension concerning the outcome of this situation from the time he is stopped on the road until after he is convicted. Both at the police station and in court, he will be brusquely processed alongside "common criminals" and, not understanding court procedure, he may be humiliated by it.

2. Cost to Society

Drivers with alcohol in their bloodstreams and the collisions in which these drivers become involved are costly to the people of Ontario.

a) *Cost of Enforcement*

A 1974 Federal Breathalizer survey found 6.4% of the drivers on the road* had a blood alcohol concentration (BAC) above the legal limit of .08%. The time spent by police screening, charging and bringing some of these drivers to trial is difficult to estimate. A breathalizer interview is a lengthy process and often involves transporting the suspected offender to a centrally located breathalizer unit and analysing more than one breath sample. There are also the subsequent demands on police time for court appearances. In 1973 police in Ontario gave breathalizer interviews to 45,835 drivers of whom 41,635 were charged with a drinking-driving offence. In addition, there are the costs of judges, crown attorneys and court-support staff. If an offender is sentenced to jail, society bears the cost of maintaining him. The cost to the taxpayer to process this yearly increasing number of offenders is considerable.

b) *Cost of Collisions*

We have shown in Section A/Part II that alcohol-involved collisions tend to be the most severe in terms of human damage. And therefore, we can infer that these collisions cause greater property damage, human suffering, and wastage of resources than collisions in which alcohol was not involved. Extrapolations produced by MTC Program Analysis office, based on the 1964 Osgoode Hall study (Linden, 1965) of motor vehicle collision costs estimate a dollar loss of $64,000 per traffic fatality to the people of Ontario in 1974. This estimate used 35 years as the average age of victims of fatal motor vehicle collisions. Calculation of the losses took into account hospital, medical and collision expenses, as well as income and tax losses. On the same basis the average financial loss incurred for each person injured in a motor vehicle collision was put at $6,800. If the human damage resulting from alcohol-involved collisions does not increase from 1973 to 1974** (it probably will increase) then the dollar cost of the 1974 alcohol-involved collisions to the people of Ontario can be estimated at about $130,000,000. This is strictly an economic loss and does not in any way include the inestimable loss to society incurred when, through injury and death, one of its members can no longer contribute to the richness and quality of life.

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* Drivers were sampled between 10 p.m. & 3 a.m. from Wednesday to Sunday, April 17 - June 8, 1974.

** Estimates of human-damage in alcohol-involved collisions for 1974 are based on collision/injury ratio of 1.9 and collision/fatality ratio of 1.2. These ratios are based on 1971 and 1972 collision statistics MTC Collision File.

In addition to dollar costs, alcohol-involved collisions tie up emergency services and medical facilities thus reducing availability of hospital beds and equipment, doctors, nurses and therapists for people with diseases and unpreventable injuries. It is interesting to note that of all people in Ontario with spinal cord injuries known to the Canada Paraplegic Association, 57% received these injuries in motor vehicle collisions.

Finally there are social costs which perhaps outweigh the costs mentioned so far. Who can assess the extent of human misery brought to a person maimed, or to a family which loses a loved one? Nevertheless, these matters must be included in any appraisal of the overall costs of drinking-driving.

SECTION B: INTERVENTION

SECTION B/PART I

THE ROLE OF GOVERNMENT

The contribution of drinking-drivers to Ontario's motor vehicle collisions has been examined along with the laws, sanctions, and costs associated with the problem. The current trends show no sign of abating under our present countermeasures. In the next section various countermeasure activities are discussed and some alternatives are presented. First, however, it is useful to consider the role of government in general, for it encompasses nearly all aspects of drinking-driving prevention.

It is submitted that the success of any legislative attempt to prohibit a prescribed activity depends on the presence of four prerequisites.

— that the law is viewed by the public at large as being fair and just, and that it fulfills a basic public need;

— that the substance of the law and its social ramifications are known to the public at large;

— that the mere awareness of legislative prohibition of the activity will deter the vast majority of the population from engaging in it. This principle assumes that the population at large respects its government and is obedient to its laws;

— that a sufficient number of the minority who do engage in the prohibited activity will be detected and dealt with in such a way so as to both prevent them from engaging in the activity again and to deter others from engaging in it.

We must next consider whether the above-mentioned prerequisites are present in the law on drinking-driving as it exists in the Province of Ontario.

1. Law and the Public Interest

It is self-evident that the public will more readily support a law which is obviously in their self-interest, than one they perceive to be arbitrary and without justification. It is submitted that the public is not aware of the risks and costs that the drinking-driver imposes upon them. The government must educate the public both as to the magnitude of the problem and the need for outside intervention.

2. Knowledge of the Law

In order for the public to obey a law there must be widespread knowledge of exactly what the limits of the law are. Government cannot take refuge in the legal maxim 'ignorance of the law is not an excuse' if its primary objective is to prevent the prohibited activity from occurring in the first place. Given that most criminal offences are usually expressions of a moral code one can assume that the public is aware of the perimeters of most crimes. It is submitted that this is not the case with drinking-driving offences. The problem becomes more acute when one considers the difficulty in measuring impairment and expressing a term such as '80 mg. of alcohol per 100 ml. of blood' to a public which has no subjective idea of what such a BAC level feels like.

3. Obedience To Law

Laws prohibiting a prescribed activity are usually expressions of a moral or social code. Where this is the case, the law is reinforced by society's disapproval of the immoral or antisocial behaviour. This is true in the case of most criminal offences such as rape, murder, theft, etc. Whenever a law does not have the benefit of moral reinforcement one cannot assume that it will be obeyed by otherwise law-abiding citizens. When this occurs there is often widespread disobedience of the law, as for example, in the case of drug and taxation laws. A law prohibiting drinking-driving is even more unique than a drug or taxation law, in that the two ingredients of the offence, i.e., drinking and driving, are, when isolated from each other, actively encouraged by society in its pursuit of the good life. One might well come to the conclusion that widespread contravention of a law prohibiting drinking-driving is inevitable in a society which has relatively easy access to both activities.

The dilemma facing government is that two separate activities, which it is seen to sanction and profit from, combine to form a hybrid activity which is a criminal offense and has damaging consequences. The government, therefore, has the responsibility to establish a public awareness of the drinking-driving problem and to become actively engaged in effective countermeasure activity. Protection from antisocial behaviour is one of the primary responsibilities that a government owes to its citizens.

4. Detection and Deterrence

In order for a law prohibiting an activity to be effective there must be a widespread belief among the public at large that if they engage in the prohibited activity, there is a strong likelihood that they will be detected and face the consequences of being convicted of the offence.

Further, the consequences and penalties imposed upon conviction must be seen to be effective in reducing the risk of the offender committing the offence again.

If government accepts these two assumptions then it must consider the following matters and their relative importance in reducing the drinking-driving problem:

— the desirability and effectiveness of short-term imprisonment as a tool for deterrence, rehabilitation and protection of the public;

— the effectiveness of suspension of driving privileges which is not accompanied by high visibility enforcement of driving while under suspension;

— the effectiveness of periods of suspension as set out in the Highway Traffic Act. Are they too short? Would shorter periods be just as effective or even more effective keeping in mind that too severe a penalty might be counter effective? Would impounding the offender's vehicle reinforce the suspension?

— the desirability of adopting roadside screening devices both as a deterrent and as a monitoring instrument;

— the desirability of incorporating voluntary or mandatory alcohol treatment as an integral part of the sentencing process;

— the desirability of incorporating driver improvement training as an integral part of the sentencing process;

— the effectiveness and fairness of fines which bear no relation to income.

In order to reduce the magnitude of the drinking-driving problem it is respectfully submitted that whatever alternatives government adopts, the implementation of government policy must accomplish the following:

— it must make the public aware of the need to prohibit 'impaired' driving. This could be accomplished by widespread and continuous education of the public of the risk which the impaired driver poses to society both in terms of physical injury and social costs;

- it must make the public aware of how one reaches a level of legal impairment and how alcohol effects one's ability to drive;
- it must encourage a public awareness of the consequences of being convicted of a drinking-driving offence;
- it must encourage high visibility law enforcement in order to increase the perceived risk of detection;
- it must ensure that the penalties imposed on conviction are adhered to particularly in the detection and disposition of those who continue to drive after their license has been suspended for a drinking-driving offence;
- it must enhance the law with an attribute of fairness by providing wherever possible, alternate means of transportation in areas where the public is known to consume alcohol.

SECTION B/PART II

ALTERNATIVES

The Three Stages of Intervention

Intervention in the form of the application of countermeasure activities is possible at three distinct stages of the drinking-driving problem:

1. **Primary Intervention** i.e. before the drinking-driving occurs.

2. **Secondary Intervention** i.e. after the drinking-driver is on the road but before a collision occurs.

3. **Tertiary Intervention** i.e. after the drinking-driver has been detected, charged and convicted, but before he recommits the offence.

Within each of these three classifications of intervention activities different types of countermeasures are possible.

I Primary Intervention

- Educational media programs
- Classroom instruction
- Alternative modes of transportation
- Mechanical intervention
- Increased public obedience to drinking-driving laws
- Increased appreciation of the probability that the drinking-driver will be detected, charged and convicted.
- Increased public awareness of the costs associated with being charged and convicted of a drinking-driving offence.
- The requirement that those who profit from the sale of alcohol to contribute to the reduction of the drinking-driving problem.

II Secondary Intervention

- Increased detection of drinking-drivers by assigning a higher enforcement priority to the offence
- Increased detection of the drinking-drivers by increasing law enforcement at specific times and places.

III Tertiary Intervention

- Reassessment of the penalties presently imposed for conviction of a drinking-driving offence
- Reassessment of the rehabilitative role of the court and conviction systems

Intervention: The Three Target Groups

It is submitted that in addition to the three stages of intervention there are three distinct groups of drinking-drivers, each with its own characteristics. While some intervention activities would reduce the drinking-driver problems in all three groups, some intervention activities would be more successful with one group than with others.

The three groups are:

Young Drinking-Drivers — drivers aged 16-24 years. Generally, this group is made up of people who are:

- inexperienced at driving
- inexperienced at drinking
- inexperienced at combining drinking and driving.

The young drinking-driver is worthy of special attention for the following reasons.

In 1973, the proportion of young drivers in alcohol-involved collisions was higher than that of all older age groups.

While the proportion of drivers in alcohol-involved collisions is remaining constant for the older age groups, the proportion of young drivers in alcohol-involved collisions is increasing (Figure 4, Section A, Part II, Appendix A, Table A20).

Problem Drinking-Drivers or Alcoholics — This group is worthy of special attention in that it is made up of drivers who are:

- no longer in control of their drinking

- in need of treatment

- not amenable to persuasion by the same methods as those which could be used to persuade a social drinker, e.g., media campaigns

Social Drinking-Drivers — This group is worthy of special attention in that, in general, its members share the following characteristics in that they:

- are relatively experienced drinkers and drivers;

- are relatively experienced drinking-drivers;

- have control of their drinking; and,

- are amenable to persuasion concerning their drinking.

Having submitted that there are three stages of intervention and three targets of intervention, it is proposed to examine various intervention activities in the light of these two classifications. While for purposes of clarity the activities outlined below are treated separately, many of them could be combined in various ways which would be mutually reinforcing.

I. PRIMARY INTERVENTION

A variety of activities can be undertaken in the area of primary intervention.

EDUCATIONAL MEDIA PROGRAMS

Information on the costs of drinking-driving should be presented in a manner which is accepted and understood by the group at which it is aimed. It should be transmitted through any media to which the particular group is receptive at a time when the majority of people in that particular group are exposed.

Advantages:

1) May reinforce concepts learned during driver training.

2) Allows any person who did not receive such training to obtain the information.

3) Allows for updating as new information becomes available.

4) Can reach the broadest possible audience, including groups which would otherwise be difficult to identify and contact.

Disadvantages:

1) Not likely to be effective unless carefully researched and pretested.

2) Costly, as it would be necessary to utilize expensive media such as radio and T.V.

Groups For Whom Educational Media Programs are Relevant:

Young Drinking-Drivers: This group could be reached through several media providing the information is relevant to them and is presented in an acceptable way.

Problem Drinking-Drivers: It is generally conceded that people with a drinking problem have little control over their drinking behaviour. Therefore, it is not likely that an information program alone would be particularly helpful in changing behaviour.

Social Drinking-Drivers: Again it is necessary to present relevant information in an acceptable manner. The drinking habits of Social Drinking-Drivers differ from those of young drinking-drivers and therefore, the information conveyed should be consistent with these differences.

Situation in Ontario:

Some pilot studies which have evaluative components built in are being undertaken by MTC and ARF.

Currently, various voluntary groups and commercial organizations are producing 'old style' safety information of dubious quality and impact.

Situation Elsewhere:

There is presently a concern internationally to improve the effectiveness of educational campaigns for highway safety.

In 1970 a special committee was set up by the Organization for Economic Cooperation and Development (a NATO agency) to study the problem. The report of this committee's activities (See bibliography) clearly shows that while there are notable successes in mass communication programs, these are few. The committee is presently obtaining information from all countries conducting mass media campaigns in an effort to combine knowledge and distribute it to all those working in the area.

The U.S. Department of Transport has just completed a report to Congress on the use of mass media for public safety and is proposing to undertake a carefully researched mass media demonstration program (see bibliography for reference).

CLASSROOM INSTRUCTION

Classroom instruction on drinking-driving could be conducted:

a) in the school system;

b) in driver education courses; and,

c) in driver licensing.

Since these facilities are available principally for the young drinking-driver group, this alternative is only applicable to this group.

Advantages:

1. Classroom instruction, by definition, implies a captive audience.

2. Young drivers are by and large a well educated audience who can learn quickly

3. They are well motivated to learn because of critical interest in driving and in drinking

4. They are at the formative stages of drinking careers and drinking-driving careers, and so there is no firmly established pattern to break before another pattern is learned

5. Many of the facilities necessary to carry out a program already exist (schools, driver education course, driver licensing)

Disadvantages:

1. Would be costly

2. The school curriculum does not presently accommodate a drinking-driving education program.

3. At present, the information needed for such a program is:
a) not assembled
b) not packaged for youth

4. At present, instructors are not trained

5. At present, there is no Ministry of Education involvement in this type of activity.

Situation in Ontario:

Such a system does not exist in Ontario.

Situation Elsewhere:

No program dealing specifically with youthful drinking-drivers has been implimented on a large scale in the U.S. to the authors' knowledge. There are some driver education programs in the schools in Europe, but these are not specifically aimed at drinking-driving.

ALTERNATIVE MODES OF TRANSPORTATION

Alternative transportation for drinkers would involve organizing a transportation system in the late evening/early morning hours, specifically designed to meet the needs of the drinking population.

Advantages:

1. Avoids the commission of the illegal act.

2. Avoids the possibility of a collision.

3. Could have positive side effects such as fuel conservation and better utilization of public transportation facilities.

4. Avoids the collision problem for problem drinkers who are most likely to have high BAC's (BAC is clearly related to accident probability).

Disadvantages:

1. Only feasible in urban areas

2. Requires considerable re-routing or re-scheduling of services, e.g. greater emphasis on late night/early morning transit.

3. Has to compete with convenience, status and comfort of private car.

Groups For Whom Alternative Transportation is Relevant:

The travel patterns of young drinking-drivers will require careful investigation to determine whether this special service could be utilized by young drivers.

A form of alternative transportation which is potentially most useful for problem drinking-drivers would be the provision of transportation, at closing time, from pub to home, or from known drinking places to convenient public transportation. Travel patterns should be investigated.

For social drinking-drivers the form of alternative transportation would be similar to that for problem drinking-drivers with the added provision of transportation to and from social functions. Travel patterns should be investigated.

Situation in Ontario:

Some experimental efforts have been made e.g. an extended Dial-a-Bus service in Kingston in December, 1973, which was well received and well used. A variety of efforts have been made, specifically on New Years Eve, to extend regular transport services, e.g., the Toronto Transit Commission in Toronto and the North Bay Buses.

Situation Elsewhere:

No comprehensive program for transporting drinkers is known of at present (August 1974), although attempts at the kind of activities taking place in Ontario are becoming more frequent in other places.

MECHANICAL INTERVENTION

The term mechanical intervention refers to the possibility of building into the vehicle a device which would not permit the vehicle to be started until some task has been satisfactorily carried out which demonstrates that the driver is not impaired. This could be a task involving psychomotor coordination and memory processes or could conceivably involve breathalyzer type equipment. All technical problems have not presently been solved.

Advantages:

1. Mechanical intervention prevents the alcohol-impaired driver from driving and thus being involved in a collision.

Disadvantages:

1. It would be an irritating task to impose upon sober drivers every time the car is to be started.

2. Technical problems; It may be impossible to design a device which is capable of being operated by all sober drivers but is sensitive to the effects of inebriation.

3. This would be essentially a long term countermeasure in that it will take up to 10 years before 90% of the vehicle population would be equipped.

4. There is no guarantee that a more sober acquaintance won't start the car and then allow the impaired driver to get behind the wheel.

5. Will add to the expense of vehicles.

Situation in Ontario:

Mechanical intervention devices are not currently available.

Situation Elsewhere:

Work is proceeding on prototypes (see Oates, J.F., 1973).

INCREASE PUBLIC OBEDIENCE TO DRINKING-DRIVING LAWS

As indicated in Section A, Part 3, a law prohibiting a prescribed activity generally requires some kind of reinforcement if it is to be effective. Reinforcement can be provided by reference to morality or to the fact that it satisfies a known social need.

As indicated earlier the unique nature of drinking-driving offences makes them difficult to reinforce morally. However, it may be possible to reinforce drinking-driving laws by establishing in the minds of the public that these laws are fair, and that they fulfill a basic public need. This could be accomplished by making the public aware of:

— the threat presented to them by the drinking-driver

— the frequency with which the offence is committed

— how alcohol impairs one's ability to drive a motor vehicle

— the various levels of impairment and how much one must consume to reach these levels

— what is meant by the phrase "80 mg of alcohol per 100 ml of blood" and why this level is considered a state of impairment that presents a danger to the public

— the consequences of being detected, charged and convicted, and why these consequences are fair and just in terms of the punishment fitting the crime.

INCREASED APPRECIATION OF THE PROBABILITY THAT DRINKING-DRIVERS WILL BE DETECTED, CHARGED AND CONVICTED

It is assumed that the frequency with which an offence is committed is related to the risk of being caught. That is, if the risk of being caught is increased the frequency of the offence should decrease. What is important, however, is not only the real probability of being caught, charged and convicted, but how that probability is perceived by the potential offender.

For example, as long as a drinking-driver feels that the chance of being caught is quite remote, then the enforcement activity of the police will have no preventative effect. Similarly, regardless of the severity of the penalties for drinking-driving offences, they will not be an effective deterrent unless their severity is known to the drinking-driver.

An increase in the perceived risk of being caught can be brought about by establishing a highly visible police presence at times and places where drinking-driving offences often occur.

One example of this type of activity would be the presence of police officers and marked cruisers in the vicinity of parking lots of drinking establishments between the hours of 8 p.m. and 2 a.m.

Advantages:

1. Should deter drinkers from driving their cars to establishment where they drink

2. Should deter drinkers who have brought their cars from driving them home if they perceive themselves to be impaired

3. Would probably be supported by the public at large.

Disadvantages:

1. Might require additional police manpower or a reallocation of priorities

2. Might be considered discriminatory against those who drink in public places as opposed to those who drink in private homes

3. Might be criticized by drinking establishments as interfering with their right to earn a living.

To be fair this countermeasure should include the provision of alternative transportation.

Another example of ways to increase subjective probability of apprehension would be the presence of sustained police spot-checks at times and places of a high occurrence of drinking-driving offences.

Advantages:

1. Should act as a general deterrent

Disadvantages:

1. Might require additional police manpower or a reallocation of priorities

2. Might be perceived by the public at large as harrassment of law-abiding citizens for the sake of catching a few offenders.

To be effective this type of countermeasure should be well publicized and include the provision of alternative transportation.

Situation in Ontario:

One example of this type of activity is the Metro Toronto Police annual Spot Checks and Blitzes.

Situation Elsewhere:

This type of countermeasure activity has been implemented in various jurisdictions at various times. However, the authors are unaware of any proper evaluation of the effectiveness of this countermeasure.

INCREASE PUBLIC AWARENESS OF THE COST OF BEING CHARGED AND CONVICTED OF DRINKING-DRIVING OFFENCE

It is submitted that drivers in general are not aware of all of the costs that acrue to a person charged and convicted of a drinking-driving offence. In Section A/ Part V we have attempted to set out all of the costs involved. These costs range from monetary costs such as lawyers fees, increased insurance premiums etc. to social costs such as license suspension, the trauma and embarrassment of trial in a criminal court and possibly a jail term.

It is suggested that the government engage in a media campaign to convey the true costs involved to the driver population at large.

Advantages:

1. Such a campaign could be of significant value in reducing the magnitude of the drinking-driving problem.

Disadvantages:

1. No assurance that an increase of information will substantially affect behaviour in this area.

THE REQUIREMENT THAT THOSE WHO PROFIT FROM THE SALE OF ALCOHOL CONTRIBUTE TO THE REDUCTION OF THE DRINKING-DRIVING PROBLEM

This report is concerned with alcohol and its role in the drinking-driving problem. However, it is essential that reference be made to the necessity of placing social responsibility on those who profit from the sale of alcohol. Active involvement by this sector in the reduction of the drinking-driving problem should be mandatory given its potential influence over public attitudes to drinking. At present, under the guise of brand preference alcohol advertising, attempts are made to leave the public with the impression that social events are more enjoyable if alcohol is available; and that those who consume alcohol are youthful, exciting people who enjoy life. This becomes significant given that the pursuit of these ideals often involves driving.

If this is correct, then alcohol advertising may very well add to the magnitude of the drinking-driving problem. It is therefore not unreasonable for government to insist that the alcohol industry contribute to the reduction of the drinking-driving problem.

This might be accomplished by requiring the inclusion of a drinking-driving countermeasure in every alcohol advertisement (perhaps as much as 25% of the content).

Another possible countermeasure is requiring the alcohol industry (hotels, manufacturers, etc.) to contribute to providing alternate forms of transportation at places where alcohol is consumed. It is interesting to note that one distillery has provided free T.T.C. transportation in the city of Toronto on the last two New Year Eves — the public took full advantage of this service.

Finally, Brewer's Retail Stores and L.C.B.O. outlets should be required to provide facilities for the distribution of drinking-driving information and countermeasure advice.

Advantages:

1) Links countermeasure activities directly with drinking.

2) Places social responsibility on those who contribute to the problem.

3) Is consistent with the privilege / responsibility theory of social contract.

4) Reduces government's expense in the area of countermeasures.

Disadvantages:

1. Requires definite government intervention in the private sector.

II SECONDARY INTERVENTION

Up to this point, we have been discussing primary intervention which has as its purpose, the prevention of drinking-driving per se. Secondary intervention, on the other hand, is concerned with preventing a drinking-driver who is already on the road from having a collision. The most effective way of accomplishing this would be to remove the drinking-drivers from the road.

It is obvious that secondary intervention involves specific law enforcement. This is not to be confused with preventative law enforcement which was discussed under primary intervention.

It should be noted at this point, that any enforcement activity undertaken for secondary intervention purposes will also have primary and tertiary intervention consequences.

There is evidence to suggest that the degree of secondary intervention at present is inadequate. Considering the amount of drinking-driving which occurs — one estimate puts the number of impaired kilometers driven per charge at 26,000 kilometers for Canada. (Canadian Ministry of Transport Report "Alcohol and Highway Safety", part 1 page 44) While other countries have a much higher rate (e.g. France - 150,000 impaired kilometers driven per charge; Netherlands - 136,000 impaired kilometers driven per charge), the Canadian figures indicate that there is certainly room for improvement in the area of secondary intervention.

INCREASED DETECTION OF DRINKING-DRIVERS BY ASSIGNING A HIGHER ENFORCEMENT PRIORITY TO THE OFFENCE

To maximize the effectiveness of selective traffic enforcement it would be necessary to allocate the appropriate percentage of manpower to enforce sections 234, 235 and 236, C.C.C. and to distribute this manpower by time of day, day of week and month of year in such a way that the level of enforcement corresponds accurately with the frequency of violations.

Advantages:

1. can be achieved with existing resources.
2. likely to prevent collisions.
3. is entirely consistent with present approach of the Ministry of the Solicitor General.

Disadvantages:

1. Will probably mean more night work which may create shift problems.

INCREASED DETECTION OF THE DRINKING-DRIVERS BY INCREASING LAW ENFORCEMENT AT SPECIFIC TIMES AND PLACES

A special patrol to apprehend drinking-drivers could be established.

Advantages:

1. Can be highly trained and specially equipped for the task.
2. Can be given a great deal of publicity which will focus public attention on the drinking-driving problem.
3. There probably would not be a shift work problem.
4. Would not detract from other activities of the police.
5. Would supplement the routine enforcement of 234, 235 and 236.

Disadvantages:

1. Would require additional manpower and equipment
2. Would be able to cover only a limited geographical area.

A high visibility customs style enforcement system could also be effective as a primary intervention countermeasure but it would also have some secondary intervention components. Customs style enforcement would involve:

a) highly visible police presence
b) stopping cars randomly to check for any violation, drinking-driving being one of those violations
c) randomly allocating periods of time during which intensive checking for drinking-driving offences takes place
d) Some of these periods of intensive checking could be highly publicized

Advantages:

1. It creates the situation where the probability of being stopped is quite high.
2. If there is some inference that the police are looking for drinking-drivers then high visibility enforcement can serve as an extremely useful preventive activity.
3. It is not necessary to charge large numbers of drivers to achieve the preventive effect. Therefore, no additional demands are placed on the courts.
4. There is increased probability of picking up other offences, e.g., driving while licence suspended, which reinforces the effect of suspension.

Disadvantages:

1) Would require a reallocation of resources.
2) Might be perceived by the public as a harassment of law-abiding citizens for the sake of catching a few offenders.

Limitations

It should be borne in mind that, as discussed in Section A Part 4, there is an absolute limit on the amount of enforcement possible, and therefore there are limits on the degree to which it is possible to manipulate the balance between prevention and apprehension.

III TERTIARY INTERVENTION

The term tertiary intervention as used herein, refers to activities initiated by a court whenever it sentences an offender who has been convicted of a drinking-driving offence. Tertiary intervention is therefore a countermeasure invoked by a court whose function is to prevent both the offender and others from committing subsequent offences.

In view of the fact that this form of intervention is in reality a court sentence, it is worthwhile to briefly examine the principles of sentencing generally.

The Principles of Sentencing

It has been judicially stated (R.V. Wilmott, 1966, 2 Ontario Reports at page 654, Ontario Court of Appeal) that:

> "The fundamental purpose of any sentence of whatever kind is the protection of society.* That this is the real purpose of a sentence cannot be over-emphasized."

The court went on to hold that;

> "For the purpose of protecting society, prevention, deterrence and reformation* should all be considered by a Court in imposing a sentence of imprisonment. The weight to be attached to these factors varies as infinitely as the facts of each case varies from others. In one case reform and rehabilitation may be the predominant consideration. In another case the deterrence of others may be paramount to reform of the individual and in another case prevention of the particular offender from continuing his activities may be paramount."

and further that;

> "although a sentence of whatever kind must of necessity express repudiation by the state of the particular unlawful conduct which constituted the offence, . . . retribution in the sense of revenge is now of little or no importance in the imposition of a sentence."

The Classification of Drinking-Driving as a Criminal Offence

It is submitted that drinking-driving offences are an unusual type of criminal behaviour for the following reasons:

1. The two components of the offence, drinking and driving, are not only legal when isolated from each other but are actively participated in by society at large.

2. The combination of drinking and driving only becomes a criminal offence when it reaches a certain level; either the level of impairment or the level of 80 mg. of alcohol per 100 ml of blood.

3. In general, persons who commit drinking-driving offences are probably otherwise law-abiding.

4. Drinking-driving offences are unquestionably the most frequent type of criminal activity.

5. In the case of most criminal offences, drunkenness is either a defence or a mitigating circumstance. However, in drinking-driving offences, drunkenness, i.e., impairment, is a component of the offence itself.

In view of the above it appears that drinking-driving offences are unique, and, although legitimately within the Criminal Code, they represent behaviour that is not ordinarily classified as criminal. The question, therefore, arises as to whether the usual criminal sentences are appropriate for drinking-driving offences. It is submitted that one of the first tasks the government must undertake is a re-examination of the existing practice of sentencing drinking-driving offenders.

* Authors' emphasis

Existing Sentences in the Province of Ontario

There are three usual forms of sentence at present:

1) fines
2) jail
3) suspension of driving privileges

These sentences are outlined and discussed in Section A, Part III, Drinking-Driving Laws in Ontario.

Existing Sentencing Practices

At this point it is interesting to note the view of those public servants who are actively engaged in the sentencing of drinking-driving offenders. In the spring of 1974, the Inter-ministerial Committee circulated a questionnaire to all Provincial Court Judges and Crown Attorneys in the province. When asked to rank the effectiveness of possible types of sentences, the respondents answered as follows:

Provincial Court Judges

1. Substantial loss of driving privileges;
2. Imprisonment;
3. Fines;
4. Mandatory alcohol treatment;
5. Probation; and
6. Voluntary alcohol treatment.

Crown Attorneys

1. Substantial loss of driving privileges;
2. Imprisonment;
3. Mandatory alcohol treatment;
4. Fines;
5. Probation; and
6. Voluntary alcohol treatment.

It is of further interest to briefly look at the type of information, concerning the offender, that is placed before a judge prior to sentencing an offender.

One would think that a "pre-sentence report", which is completed by a probation officer and outlines the background of the offender and the extent to which he consumes alcohol, would be of assistance to a judge in sentencing an offender convicted of a drinking-driving offence. However, the questionnaire revealed that:

(a) a mere 3% of Crown Attorneys generally request a pre-sentence report before a second offender is sentenced. However, 27% of them felt that in general a pre-sentence report would assist the court in determining the most appropriate sentence;

(b) only 10% of the Judges generally delayed the passing of sentence for second offenders in order that they could have the benefit of a pre-sentence report, and 85% of the Judges felt that a pre-sentence report would not be of any assistance to them in sentencing the offender. However, 53% of the Judges did "advise" second offenders to seek assitance for what appeared to be a "drinking" problem.

REASSESSMENT OF THE PENALTIES IMPOSED FOR CONVICTION OF A DRINKING-DRIVING OFFENCE

I. Fines

A) Substantial Increase in the Amount of the Fine

Advantages:

1) The severity of the fine should indicate both to the offender and the public at large the severity of the offence and the seriousness the court attaches to it.

2) Recovers part of the cost of apprehending and convicting offenders.

Disadvantages:

1) May be regarded as a penalty for being caught rather than an attempt to reduce the problem

2) May be regarded as a licence fee to commit the offence

3) Presents greater hardship for people on low incomes

4) May penalize not only the offender but also his dependents

B) Substantial Decrease in the Amount of the Fine

Advantages:

1) Reduces hardship to offender's dependents

2) Reduces hardship to people on low incomes

Disadvantages:

1) May indicate that the offence is relatively unimportant

2) May reduce deterrent effect.

C) Calculate Fine According to: — income of offender, i.e. day fines
— the level of impairment

Advantages:

1) Creates an image of equality before the law.

2) Makes the deterrent effect equivalent for all income groups.

3) Reinforces the fact that the severity of the offence is directly related to the level of impairment.

Disadvantages:

1) Presents administrative difficulties:

Situation in Ontario:

Fine between $50 - $500

Situation Elsewhere (best information available):

1) Sweden — graduated fines, based on income

2) France — 2 levels of fines, depending of BAC level
— range 500 - 1000 francs ($100 - $200)

3) United Kingdom — 100 pounds ($240)

4) Belgium — 2 levels of fines, depending on classification 'drunk' 2,000 - 10,000 francs ($50 - $250), 'intoxicated' 520 - 2,000 francs ($12 - $50)

5) Denmark — no fines

II. Imprisonment

A) Impose a Minimum Jail Term for First Offenders

Advantages:

1) Assures that the offender will not recommit the offence while he is in jail.

2) May have significant general and special deterrent effects.

3) Could be coupled with in-prison rehabilitative programmes.

Disadvantages:

1) Cost of maintaining a person in jail is high.

2) A large number of persons would be imprisoned annually (33,826 in Ontario in 1972. (See Appendix A, Table A27).

3) Often leads to job loss, family problems and other socio-economic consequences.

4) Might cause public confusion as to the relative severity of wrong. (In general, punishment must fit the crime, often those convicted of offences which have a greater maximum penalty are placed on probation)

5) Might cause backlash and loss of respect for the law.

6) Contrary to current theories of criminology which suggest that penal sanctions are not effective.

7) Usually dealing with offenders who are otherwise law abiding and therefore may be unable to cope with a jail term — which could lead to jail suicides, etc.

8) Creates a loss to society of the offender's productive abilities.

B) Abolish Imprisonment as a Penalty for Drinking-Driving Offences

Advantages:

1) Avoids the disadvantages of A.

Disadvantages:

1) Might create the impression that it is not a serious offence.

C) Impose Jail Sentences but Allow the Offender a Set Period of Time within which to Serve His Term of Imprisonment (possible at present under existing Criminal Code)

Advantages:

1) Combines the advantages and reduces the disadvantages of A and B.

Disadvantages:

1) Might create the impression that the court is too lenient with offenders.

2) Difficult to administer.

Situation in Ontario:

First Offence: possibly up to three month jail sentence.

Second Offence: mandatory jail sentence, minimum 14 days, maximum three months.

Subsequent Offences: mandatory jail sentence, minimum three months, maximum one year.

Situation Elsewhere:

1) Sweden — six month or one year sentence, depending on BAC level.

2) France — ten days to one month or one month to one year, depending on BAC level.

3) Denmark — 24 days minimum — more severe for subsequent offences.

4) Belgium — maximum of one month or maximum of three months, depending on degree of intoxication.

5) Switzerland — up to three years, if involved in an accident.

III. Suspension of the Offender's Driving Privileges

Prior to outlining the possibilities under the heading, it must be made clear that any suspension *must* be accompanied by strict enforcement of the offence of driving while under suspension. It is submitted that this is not the case at present.

A) Increased Length of Suspension

Advantages:

1) Relates the punishment to the crime.

2) If enforced, ensures that offender will not recommit the offence during the suspension period.

3) Substantial deterrent effect.

Disadvantages:

1) Difficult to determine what is the optimum period of suspension which will reduce the problem without being countereffective.

2) Creates a greater hardship on those who drive in the course of their employment. This hardship could be alleviated by the imposition of restricted licences.

B) Impounding the Offender's Vehicle as Reinforcement of the Suspension of His Driving Privileges

Advantages:

1) In general would reduce the likelihood of offender driving while suspended.

2) An additional deterrent.

Disadvantages:

1) Offenders who have their own motor vehicles are treated more harshly than those who do not.

2) Creates hardship for other members of the offender's family who also use the car.

Situation in Ontario:

Where no injury or property damage, automatic suspension of three months; where injury or property damage, suspension for six months.

The Court can prohibit driving for up to three years in any case.

Situation Elsewhere:

1) Norway — first conviction: one-year suspension
second conviction: could be suspended for life.

2) Sweden: mandatory three month or one-year suspension depending on BAC level.

3) United Kingdom — mandatory one-year suspension.

4) Denmark — one year maximum

5) West Germany — minimum of six months.

6) Switzerland — minimum of two months.

Up to this point we have discussed changes to existing types of sentences. We shall now discuss new types of sentences under the heading of rehabilitation.

REASSESSMENT OF THE REHABILITATIVE ROLE OF THE COURT AND CONVICTION SYSTEMS

I Medical Treatment

Rehabilitation in the form of medical treatment is a method of tertiary intervention.

Medical treatment for problem drinking-drivers could involve such things as referral to Alcoholics Anonymous, clinical programs and therapy sessions.

Advantages:

1. Attacks the basis of drinking-driving problem in a humane way.

2. Likelihood of curbing recidivism is greater when a medical problem is treated by medical means rather than by punitive means.

3. Successful treatment of problem-drinking will provide benefits to society over and above those gained from the prevention of drinking-driving recidivism.

4. The probability of success in treating problem-drinkers is increased by early detection.

5. Detection for a drinking-driving offence can be one way of identifying potential problem drinkers.

6. The problem-drinkers are people who regularly attain the high BAC levels associated with severe collisions.

Disadvantages:

1. Clinical programs for treatment of problem-drinking are not always effective.

2. Only reaches small portion of population (i.e. drivers with drinking problem who are apprehended)

3. Very expensive since individual treatment by highly trained professional is often required.

Situation in Ontario:

There is no province-wide rehabilitation program connected with the court system. However, the Addiction Research Foundation has designated consulting physicians in every county in the province.

Situation Elsewhere:

In the U.S.A. a driver convicted of impaired driving can be referred for treatment of an alcohol problem rather than correction or probation. Money is allocated by the U.S. government to communities to support alcohol problem treatment services: emergency, in-patient, out-patient, intermediate care, consultation and community education. Also, nationwide Alcohol Safety Action Programs were set up to encourage drivers with a drinking problem to seek medical help and to provide them with such help.

In California one group of impaired drivers were given an Alcoholics Anonymous program consisting of films, lectures and group therapy sessions. No improvement in those receiving this treatment program was observed during the first year.

In Victoria, Australia, anyone with a BAC level over .15 is sent for medical treatment of alcoholic condition.

Scotland requires two medical examinations of every driver convicted of impaired driving.

In Oregon there is a presentencing investigation into each impaired driver's drinking problem followed by referral to either a court school program or clinical program.

II Educational Rehabilitation

Another form of tertiary intervention is an educational rehabilitation program for convicted drinking-drivers. There would be compulsory programs, aimed at changing the attitudes and behaviour of young drinking-drivers and social drinking-drivers.

Advantages:

1. Gives driver information needed to make his own decision on driving after drinking.
2. Could produce fundamental change in driver's attitude.
3. Not as alienating to driver as imprisonment, high fines etc.
4. Gives courts, law officers, etc. the image of helpers rather than punishers.
5. Would be aimed at groups and is therefore less expensive than individual medical treatment.

Disadvantages:

1. Requires extra staff and materials to conduct course.
2. Fairly time consuming for driver.
3. Success is heavily dependant upon the personalities and competence of people who run the program.

Relevance to Three Groups

Many existing educational rehabilitative programs are given to all convicted drinking-drivers regardless of age, drinking habits, social mores and family background. The issue of whether or not programs should be specially prepared and administered separately to young drinking-drivers, social drinking-drivers and problem drinking-drivers, deserves serious consideration. Such a move could potentially increase the effectivenss of an educational rehabilitative program.

Situation in Ontario:

There is no Ontario-wide educational rehabilitation program connected with the court system.

The Addiction Research Foundation is planning a pilot program for 1975 in which the efficacy of different types of educational rehabilitative techniques will be examined. There are, however, small programs in North Bay and Oshawa, of an educational nature to which convicted drinking-drivers are being referred.

Situation Elsewhere:

The Phoenix Driving-While-Intoxicated Re-education Program implemented a course to supplement traditional court sentences. It consisted of 4 evening lectures, one per week, aimed at examining the effects of alcohol on driving. The emphasis was not on stopping drinking, but on encouraging the driver to evaluate his own drinking habits.

The results showed 1) a reduction of student hostility to police instructors and magistrates, 2) that most students who examined their own 'driving while impaired' behaviour planned some personal countermeasures, 3) an increase from 2% to 20% in the percentage of drivers using counselling services, and 4) although it was difficult to determine the recidivism rate, the course appeared to lower recidivism somewhat.

The Alberta Impaired Drivers' Program was set up for drivers with two or more convictions. These drivers were given the choice of attending a 28-day treatment program or a mandatory 14-20 days imprisonment. The treatment program attempted to develop a better attitude toward driving, in the hope that this would modify the driver's drinking-driving behaviour. Lecture topics included the legislation on impaired driving, information on licence suspension, insurance policies, and a discussion of the progressive stages of alcoholism.

Films and resource people were utilized in the lectures. The results reported showed signs of effectiveness although a complete evaluation report is not yet available.

SECTION B/PART III

COUNTERMEASURE PROGRAMS

Using the information presented in this report, it is possible to establish two main categories of countermeasure activity:

— those involving the evaluation of existing activities; and
— those representing new programs.

Within each of these categories there are specific programs which may be implemented to deal with various facets of the drinking-driving problem.

In the first category, involving existing activities, two programs are proposed:

1) Program to comprehensively evaluate existing *sentences* available to the Court for drinking-driving offences

2) Program to comprehensively evaluate existing methods of *enforcement* of drinking-driving laws.

These two programs would apply to all drinking-drivers. In the second category, there are three new programs each of which applies specifically to one of the three types of drinking-drivers. The components of each of the programs are listed below:

3) Program for *Young Drinking-Drivers*

   — classroom education
   — educational media programs
   — educational rehabilitation
   — alternative transportation

4) Program for *Problem Drinking-Drivers*

   — medical treatment
   — educational rehabilitation
   — alternative transportation

5) Program for *Social Drinking-Drivers*

   — educational media programs
   — educational rehabilitation
   — alternative transportation.

Evaluation

In order to monitor and evaluate countermeasures, an effective system of data collection is essential. Therefore, as a supportive measure for the programs outlined above, it is important to evaluate the types of drinking-driving data presently being collected, and to improve methods for storing such data centrally.

Integration and Co-ordination

It is critical that the implementation of any countermeasure program be integrated and co-ordinated. Throughout this report the fact that countermeasure activities in the area of drinking-driving are inter-ministerial in nature, has been frequently implied. Further, it is necessary to integrate and co-ordinate activities at 3 levels:

1) at the inter-ministerial level,

2) between programs, for example, media educational content in the Program for Young Drinking-Drivers and in the Program for Social Drinking-Drivers should be entirely consistent.

3) within programs: All aspects of each program should be co-ordinated. For example, classroom education, media education program and educational rehabilitation for the Young Drinking-Driver program, should be consistent and mutually reinforcing.

The reason for including alternative transportation in each of the three programs is to ensure that the specific needs of each of the three groups is recognized and provided for.

Ministries Involved

Schematically, the countermeasure programs and the ministries which would be involved, can be presented as shown in Figure 6.

Specific Government Action

The problem of drinking-driving has been with man since the age of chariots and wine, and its magnitude has been increasing ever since. Typically, the approach to drinking-driving has been straightforward and simple. However, drinking-driving countermeasures, simply conceived and simply applied, have a legacy of failure.

The most fruitful approach for the Province of Ontario would seem to be one of implementing one or more complete programs, such as the Young Drinking-Drivers Program, rather than singling out isolated activities which are unlikely to achieve any more success than they have in the past.

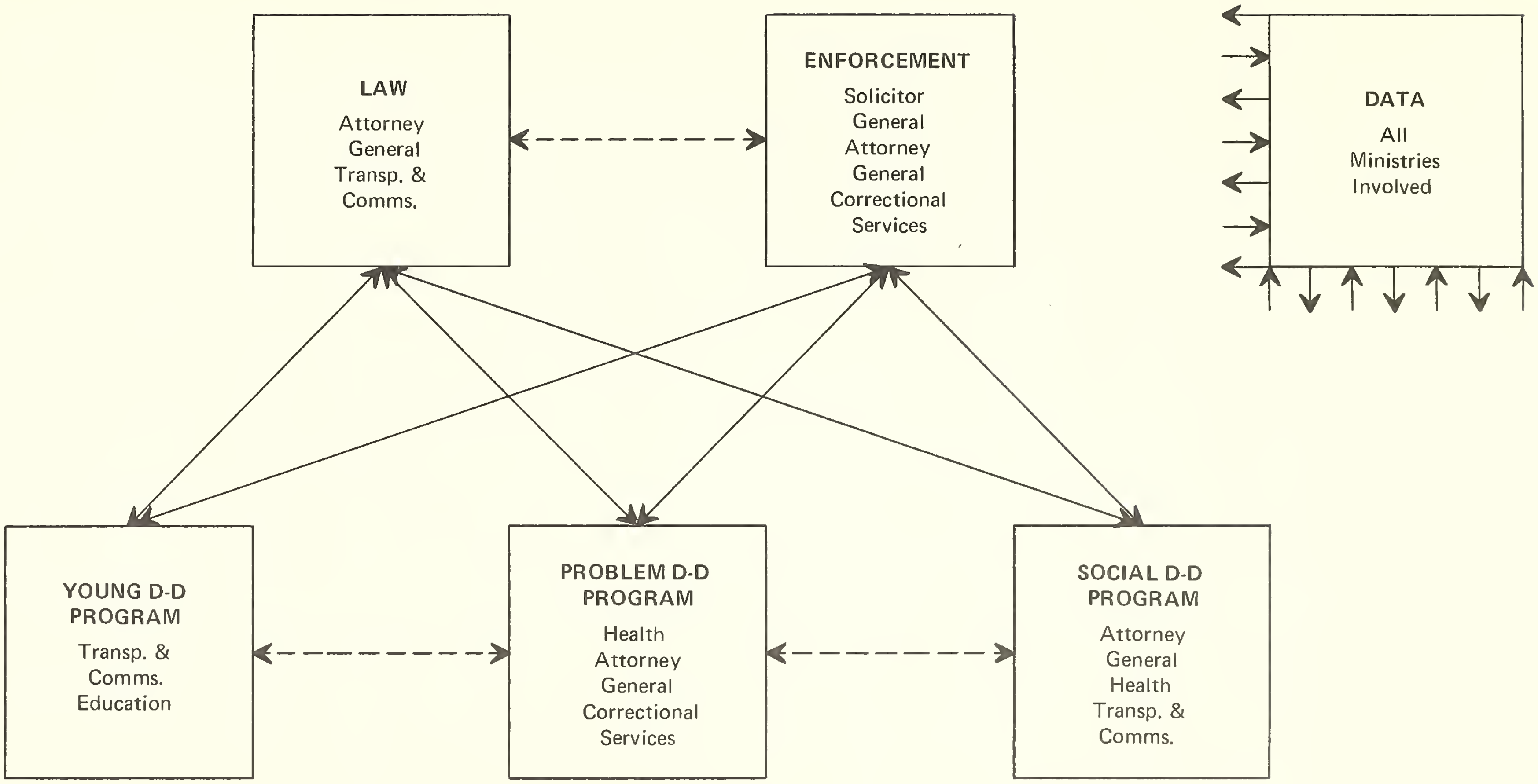

FIGURE 6 — INTER-RELATIONSHIP OF MINISTRIES INVOLVED IN COUNTERMEASURE PROGRAM.

CONCLUSIONS

Drinking-driving and the consequences it inflicts on society clearly comes within the broader problem of alcohol abuse. Although there is a need for an integrated response to alcohol misuse in this Province, this does not preclude the isolation of specific alcohol problems such as drinking-driving. Moreover, there may be definite advantages in isolating this problem from the problem of alcohol abuse generally. Some of these advantages are:

a) While desirable changes in the drinking behaviour of the population at large may be difficult to achieve, it is reasonable to expect that the concurrence of drinking and driving may be reduced by appropriate government countermeasures.

b) Government intervention into the drinking-driving problem will respond to a growing public awareness and concern which is at least in part attributable to the fact that the drinking-driver not only endangers his own safety but the safety of others.

c) Any attempt to reduce alcohol abuse generally would involve complete and far reaching measures which could only be introduced over a period of time. However, reduction of the drinking-driver problem is a more manageable task involving relatively less complex measures, some of which could be introduced in the near future.

In this report we have attempted to: describe the nature and extent of the drinking-driving problem; identify the offence and the offenders; and outline possible countermeasures that could reduce the magnitude of the problem. In so doing, we have reached the following conclusions:

1. Drinking-driving has become the largest single cause of motor vehicle collisions in the Province of Ontario. It imposes an ever-increasing cost in terms of death, personal injury, property damage and associated social costs. The individual efforts of government have so far failed to effectively curb this trend.

2. Drinking-driving behaviour is a unique criminal offence and may require more comprehensive government intervention than other criminal offences in that:

    a) Drinking-driving is the most frequent type of criminal activity, yet most persons who commit drinking-driving offences are in general, otherwise law abiding.

    b) The two components of the offence, i.e., drinking and driving, are, when isolated from each other, not only legal, but activly participated in by society at large.

    c) The combination of drinking and driving becomes a criminal offence only when it reaches a certain level: the level of impairment or the level of 80 mg. per 100 ml. of blood.

    d) In the case of most criminal offences, drunkenness is either a defence or a mitigating circumstance. However, in drinking-driving offences, drunkenness, i.e., impairment, is a component of the offence itself.

3. It is possible to identify three distinct groups of drinking-driving offenders. The three groups are:

    a) Young Drivers (drivers aged 16-24 years)

This group is worthy of special attention in that they are:

- inexperienced at drinking
- inexperienced at driving
- inexperienced at drinking-driving

In 1973, the proportion of young drivers in alcohol-involved collisions was higher than that of all older age groups.

While the proportion of drivers in alcohol-involved collisions is remaining constant for the older age groups, the proportion of young drivers in alcohol-involved collisions is increasing.

b) *Problem Drinkers and Alcoholics*

This group is worthy of special attention in that it is made up of drivers who are:

- no longer in control of their drinking
- in need of treatment
- not amenable to persuasion by the same methods which can be used to persuade a social drinker.

c) *Social Drinkers*

This group is worthy of special attention in that its members generally share the following characteristics:

- they are relatively experienced drinkers and drivers
- they still have reasonable control over their drinking and are amenable to persuasions concerning their drinking-driving.

4. There are three stages in intervention and several possible countermeasures within each.

a) *Primary Intervention*

- educational media programs
- classroom instruction
- alternative modes of transportation
- mechanical intervention
- increased public obedience to drinking-driving laws
- increased appreciation of the probability of detection and conviction
- increased public awareness of the costs associated with being convicted of a drinking-driving offence
- the requirement that those who profit from the sale of alcohol contribute to the reduction of the drinking-driving problem.

b) *Secondary Intervention*

- increased detection of the drinking-driver by assigning a higher enforcement priority to the offence.
- increased detection of the drinking-driver by increasing law enforcement at specific times and places.

c) *Tertiary Intervention*

- reassessment of the penalties presently imposed for conviction of a drinking-driving offence.
- reassessment of the rehabilitative role of the Court.

5. Some intervention countermeasures are effective in dealing with all drinking-drivers while others are only applicable to a specific group. This latter set of countermeasures can be assembled into three programmes specifically aimed at three groups of drinking-drivers:

   - young drinkers
   - problem drinkers
   - social drinkers

   While there is obviously some overlap of the groups, for implementation purposes each of these programs must be viewed as a unit and implemented as such. Initiation of a single countermeasure rather than a complete program is unlikely to be successful.

6. It is essential that the implementation of countermeasure activities be integrated and co-ordinated at three levels:

   - At the inter-ministerial level of the Provincial Government
   - Between programs. Integration of activities that are common to more than one of the programs.
   - At the program level. Integration of all aspects of each program.

7. The data required to plan a selective law enforcement program are presently available, or at least potentially available, and should be used as the basis for an enforcement program for drinking-driving offences.

8. In order to reduce the magnitude of the drinking-driving problem it is essential that whatever policy the government adopts, the implementation of government policy must accomplish the following:

   - it must make the public aware of the need to prohibit 'impaired' driving. This could be accomplished by widespread and continuous education of the public of the risk which the impaired driver poses to society both in terms of physical injury and social costs.

   - it must make the public aware of how one reaches a level of legal impairment and how alcohol effects one's ability to drive;

   - it must encourage a public awareness of the consequences of being convicted of a drinking-driving offence;

   - it must encourage high visibility law enforcement in order to increase the perceived risk of detection;

   - it must ensure that the penalties imposed on conviction are adhered to particularly in the detection and disposition of those who continue to drive after their license has been suspended for a drinking-driving offence;

   - it must enhance the law with an attribute of fairness by providing where-ever possible, alternate means of transportation in areas where the public is known to consume alcohol.

9. In light of the fact that the Provincial Government has responded to public demand for easier access to both drinking and driving, it is respectfully submitted that, in so doing, it has a clear responsibility to intervene to a greater degree into the drinking-driving problem. It is further submitted that the Government will receive widespread public support for this increased intervention.

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APPENDIX A
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TABLE A1,
DOLLAR SALES AND APPARENT COMSUMPTION OF ABSOLUTE ALCOHOL PER CAPITA 15 YEARS AND OLDER IN CANADA AND THE PROVINCES, 1972

PROVINCE	POPULATION AGED 15 AND OLDER	DOLLAR SALES PER CAP. OF 15 AND OLDER	LITRES OF ABS. ALC. PER CAP. OF 15 AND OLDER
Nfld.	337,700	$141.5	7.27
P.E.I.	78,000	140.5	8.91
N.S.	557,600	141.0	8.59
N.B.	441,800	124.9	7.27
Que.	4,323,200	111.0	9.09
Ont.	5,631,300	140.3	10.55
Man.	709,500	146.0	10.00
Sask.	646,400	130.1	8.73
Alta.	1,144,000	156.4	10.59
B.C.	1,634,600	159.6	11.59
Canada	15,504,100	134.8	9.91

* *To convert litres of beverage to litres of absolute alcohol, the following average values were employed: beer - 5% alcohol by volume, wine - 16%, spirits - 40%.*

SOURCE: Figures are based on data in The Control Sale of Alcoholic Beverages in Canada, Fiscal Year Ended March 31, 1972 (Statistics Canada, Ottawa).

TABLE A2, APPARENT CONSUMPTION OF ABSOLUTE ALCOHOL PER CAPITA IN SELECTED COUNTRIES

	COUNTRY	YEAR	REPORTED CONSUMPTION IN 100% ALCOHOL, LITRES
1.	France	1971	16.7
2.	Italy	1971	13.4
3.	Germany, Fed. Rep.	1971	12.3
4.	Portugal	1971	12.2
5.	Spain	1971	12.0
6.	Austria	1971	11.4
7.	Argentina	1971	10.9
8.	Luxembourg	1971	10.8
9.	Switzerland	1970	10.6
10	Hungary	1971	9.5
11.	Belgium	1971	9.5
12.	Czechoslovakia	1970	8.4
13.	Australia	1970/71	8.4
14.	Yugoslavia	1970	7.5
15.	New Zealand	1970	7.4
16.	Canada	1970/71	7.0
17.	Denmark	1970	6.8
18.	United Kingdom	1971	6.7
19.	Germany, Dem. Rep.	1971	6.5
20.	U.S.A.	1971	6.3
21.	Romania	1970	6.3
22.	Chile	1970	6.2
23.	Netherlands	1971	6.2
24.	Poland	1971	5.9
25.	Bulgaria	1971	5.9
26.	Sweden	1971	5.7
27.	Japan	1971	5.5
28.	Greece	1971	5.3
29.	Ireland	1969/70	5.0
30.	Finland	1971	4.8
31.	Uruguay	1970	4.3
32.	Norway	1971	3.7
33.	Cyprus	1971	3.5
34.	Iceland	1971	3.4
35.	South Africa	1971	3.0
36.	Peru	1970	2.5
37.	U.S.S.R.	1970	2.3
38.	Surinam	1970	2.2
39.	Israel	1971	2.1
40.	Venezuela	1970	2.0
41.	Cuba	1970	1.8
42.	Mexico	1970	1.4
43.	Brazil	1970	0.8
44.	Tunisia	1970	0.6
45.	Lebanon	1970	0.5
46.	Paraguay	1970	0.5
47.	Turkey	1971	0.5
48.	Morocco	1970	0.4
49.	Algeria	1970	0.3

SOURCE: "How Many Alcoholic Beverages are Being Consumed Throughout The World?"

Produktschap voor Gedistilleerde Dranken, 11th Edition, 1972.

TABLE A3,
AVERAGE CONSUMPTION IN LITRES OF ABSOLUTE ALCOHOL PER CAPITA 15 YEARS AND OLDER IN ONTARIO

YEAR	BEER	WINE	SPIRITS
1955	5.0	0.4	2.1
1968	5.7	1.0	3.8

Source: The Control and Sale of Alcohol Beverages in Canada. Fiscal Year Ended March 31, 1972.

TABLE A4,

ONTARIO ALCOHOLIC BEVERAGE SALES BY GALLONS

12 MONTHS ENDING MARCH	SPIRITS	WINE	BEER	TOTAL
1967	8,474,555	4,117,636	112,347,771	124,939,962
1968	9,383,641	4,652,952	113,476,100	127,512,693
1969	10,835,907	5,861,373	110,658,512	127,355,792
1970	9,779,419	5,856,399	123,174,962	138,810,780
1971	10,453,193	6,746,230	131,093,618	148,293,041
1972	11,821,227	7,984,661	141,230,998	161,036,886
1973	12,527,992	8,687,893	145,782,027	166,997,912

Source: Reports of the Liquor Control Board of Ontario (41st, 42nd, 44th, 45th, 46th, and 47th Reports.)

TABLE A5,

REVENUE TO ONTARIO FROM SALES OF LIQUOR, WINE AND BEER IN RELATION TO THE TOTAL REVENUE OF ONTARIO

FOR FISCAL YEAR ENDING MARCH	TOTAL REVENUE TO THE PROVINCE FROM SALES OF LIQUOR, WINE AND BEER	TOTAL GOVERNMENT REVENUE FROM ALL SOURCES	PROFITS AS A PERCENTAGE OF REVENUE
1968	$171,795,321	$2,885,000,000	6.0
1969	$219,488,692	$3,531,000,000	6.2
1970	$231,912,746	$4,401,000,000	5.3
1971	$250,638,656	$5,081,000,000	4.9
1972	$284,579,631	$5,403,000,000	5.3
1973	$327,584,237	$6,115,000,000	5.4

Source: Reports of the Liquor Control Board of Ontario (42nd, 43rd, 44th, 45th, 46th and 47th Reports).
1974 Ontario Budget Papers, page C23.

TABLE A6,

ONTARIO MOTOR VEHICLE PERMITS ISSUED

LICENSE YEAR	PASSENGER CAR	TRUCKS AND TRACTOR (EST)	DUAL PURPOSE (S.W. & VANS)	BUSES (EST)	MOTORCYCLES	TOTAL
1966	2,063,754	360,719	171,735	9,307	37,959	2,643,474
1967	2,134,287	370,783	178,057	10,298	42,941	2,736,366
1968	2,237,298	385,242	187,618	11,604	47,826	2,869,588
1969	2,308,743	400,156	192,975	12,040	39,875	2,953,789
1970	2,376,435	413,241	199,606	13,066	45,251	3,047,599
1971	2,497,307	430,371	215,747	13,611	52,826	3,209,862
1972	2,611,998	465,477	236,937	14,305	57,727	3,386,444
1973	Not Available					

Source: *Annual Report 1968 and 1969, 1970,* Ministry of Transportation and Communications, Ontario and from the Motor Vehicle Licensing of the Ministry of Transportation and Communications, Ontario.

TABLE A7,

DRIVER POPULATION IN ONTARIO BY AGE

AGE GROUP	1968	1969	1970	1971	1972	1973
16 - 19	197,413	210,072	225,148	238,339	244,086	258,976
20 - 24	412,669	438,719	476,147	488,899	493,658	509,640
25 - 34	730,978	761,966	807,518	859,893	917,902	970,943
35 - 44	703,515	707,781	724,555	736,141	744,197	759,671
45 - 54	555,198	572,356	599,881	621,381	645,207	667,795
55 - 64	342,733	361,286	380,628	397,325	410,407	425,649
65 & over	186,003	195,799	209,015	221,219	233,084	248,954
TOTALS	3,128,509	3,247,979	3,422,892	3,563,197	3,688,541	3,841,628

Source: *Annual Report Ontario Department of Transport 1968, 1969, 1970.*
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Highway Traffic Collisions 1973, Ministry of Transportation and Communications, Ontario.

TABLE A8,

MILEAGE TRAVELLED IN ONTARIO*	
1967	25,042,295,000
1968	26,698,288,000
1969	28,608,476,000
1970	30,041,696,000
1971	31,407,952,000
1972	34,864,557,000
1973	37,771,576,000

**Mileage estimated on the basis of 13.72 miles per gallon of taxed gasoline and motor fuel.*

Source: *Highway Traffic Collisions, 1967, 1968, 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario.

TABLE A9,

FATAL COLLISIONS 1972 AND 1973 IN ONTARIO BY COLLISION'S ALCOHOL STATUS

YEAR	APPARENTLY NORMAL.		ABILITY IMPAIRED ALCOHOL		HAD BEEN DRINKING		OTHER		NOT KNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1972	111	6.9	91	5.6	341	21.0	767	47.3	310	19.1	1620	100
1973	94	5.8	107	6.6	340	20.9	770	47.4	314	19.3	1625	100

Apparently Normal - If *all* drivers and pedestrians involved were coded "normal".

Ability Impaired-Alcohol - If at least one of the persons involved was coded "ability impaired-alcohol".

Had Been Drinking - If at least one of the persons involved was coded "had been drinking" and none were coded "ability impaired-alcohol".

Not Known - If *all* drivers and pedestrians were coded "not known".

Other - All others. (Includes a combination of: ability impaired — drugs, fatigue, medical or physical defect, and other.)

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A10,

NON-FATAL COLLISIONS 1972 AND 1973 IN ONTARIO BY COLLISION'S ALCOHOL STATUS

YEAR	APPARENTLY NORMAL		ABILITY IMPAIRED ALCOHOL		HAD BEEN DRINKING		OTHER		NOT KNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1972	4832	7.6	3199	5.0	8224	12.9	45,543	71.7	1743	2.7	63,541	100
1973	4779	7.3	3440	5.3	8977	13.7	46,603	71.3	1536	2.4	65,335	100

Apparently Normal - If *all* drivers and pedestrians involved were coded "normal".

Ability Impaired-Alcohol - If at least one of the persons involved was coded "ability impaired-alcohol".

Had Been Drinking - If at least one of the persons involved was coded "had been drinking" and none were coded "ability impaired-alcohol".

Not Known - If *all* drivers and pedestrians were coded "not known".

Other - All others. (Includes a combination of: ability impaired – drugs, fatigue, medical or physical defect, and other.)

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A11,

PROPERTY DAMAGE COLLISIONS 1972 AND 1973 IN ONTARIO BY COLLISION'S ALCOHOL STATUS

YEAR	APPARENTLY NORMAL		ABILITY IMPAIRED ALCOHOL		HAD BEEN DRINKING		OTHER		NOT KNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1972	97,165	78.1	4,746	3.8	9,594	7.7	8,196	6.6	4,632	3.7	124,333	100
1973	98,338	78.0	5,038	4.0	10,136	8.0	8,726	6.9	3,823	3.0	126,061	100

Apparently Normal - If *all* drivers and pedestrians involved were coded "normal".

Ability Impaired-Alcohol - If at least one of the persons involved was coded "ability impaired-alcohol".

Had Been Drinking - If at least one of the persons involved was coded "had been drinking" and none were coded "ability impaired-alcohol".

Not Known - If *all* drivers and pedestrians were coded "not known".

Other - All others. (Includes a combination of: ability impaired — drugs, fatigue, medical or physical defect, and other.)

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File

TABLE A12,

ALCOHOL–INVOLVED HUMAN-DAMAGE COLLISIONS IN ONTARIO BY MONTH FOR 1972 AND 1973.

	FATAL		FATAL & NON–FATAL INJURY	
Month	No. of Alcohol Collisions	Alcohol Collisions as a Percent of All Fatal Collisions	Alcohol Collisions	Alcohol Collisions as a Percent of All F and NF Collisions
Jan. 1972	18	17.5%	774	15.8%
Jan. 1973	21	18.8%	731	17.0%
Feb. 1972	21	26.9%	771	15.8%
Feb. 1973	16	21.6%	812	18.0%
Mar. 1972	28	30.4%	822	18.4%
Mar. 1973	35	37.2%	958	20.8%
Apr. 1972	29	25.9%	871	20.3%
Apr. 1973	26	26.0%	938	19.0%
May 1972	28	21.9%	897	16.9%
May 1973	38	29.5%	1105	18.8%
June 1972	35	21.5%	1069	17.6%
June 1973	34	24.1%	1216	19.0%
July 1972	47	28.3%	1059	17.6%
July 1973	50	29.6%	1121	18.2%
Aug. 1972	41	27.2%	1072	17.2%
Aug. 1973	63	28.9%	1115	18.4%
Sept. 1972	57	30.3%	1137	19.4%
Sept. 1973	47	27.2%	1234	20.1%
Oct. 1972	43	26.4%	1191	20.5%
Oct. 1973	43	25.9%	1238	19.5%
Nov. 1972	50	33.6%	1040	19.2%
Nov. 1973	39	30.7%	1155	20.7%
Dec. 1972	35	27.6%	1152	19.5%
Dec. 1973	35	28.7%	1241	20.7%

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A13,
PERCENTAGE DISTRIBUTION OF FATAL COLLISIONS OVER THE DAY OF WEEK BY THE ALCOHOL STATUS OF THE COLLISIONS FOR ONTARIO, 1973

DAY OF WEEK	NORMAL		ALCOHOL		NOT KNOWN		OTHER		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Sunday	7	7.4	96	21.5	64	20.4	100	13.0	267	16.4
Monday	19	20.2	24	5.4	26	8.3	109	14.2	178	11.0
Tuesday	17	18.1	48	10.7	20	6.4	90	11.7	175	10.8
Wednesday	13	13.8	24	5.4	24	7.6	94	12.2	155	9.5
Thursday	10	10.6	37	8.3	38	12.1	104	13.5	189	11.6
Friday	18	19.2	76	17.0	65	20.7	146	19.0	305	18.8
Saturday	10	10.6	142	31.8	77	24.5	127	16.5	356	21.9
Total	94	100	447	100	314	100	770	100	1625	100

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A14, PERCENTAGE DISTRIBUTION OF FATAL PLUS NON-FATAL INJURY COLLISIONS OVER THE DAY OF WEEK BY THE ALCOHOL STATUS OF THE COLLISIONS FOR ONTARIO, 1973

DAY OF WEEK	NORMAL		ALCOHOL		NOT KNOWN		OTHER		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Sunday	322	6.6	2634	20.5	325	17.6	5876	12.4	9157	13.7
Monday	717	14.7	934	7.3	183	9.9	6444	13.6	8278	12.4
Tuesday	704	14.4	1002	7.8	183	9.9	6214	13.1	8103	12.1
Wednesday	789	16.2	1083	8.4	208	11.2	6350	13.4	8430	12.6
Thursday	786	16.1	1279	9.9	217	11.7	6732	14.2	9014	13.5
Friday	972	20.0	2174	16.9	335	18.1	8159	17.2	11640	17.4
Saturday	583	12.0	3758	29.2	399	21.6	7598	16.1	12338	18.4
Total	4873	100	12864	100	1850	100	47373	100	66960	100

SOURCE: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A15,
PERCENTAGE DISTRIBUTION OF FATAL COLLISIONS OVER THE TIME OF DAY BY THE ALCOHOL STATUS OF THE COLLISIONS FOR ONTARIO, 1973

TIME OF DAY	NORMAL		ALCOHOL		NOT KNOWN		OTHER		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Midnight to 1 a.m.	0	0.0	41	9.2	22	7.0	28	3.6	91	5.6
1 - 2 a.m.	0	0.0	61	13.6	36	11.5	21	2.7	118	7.3
2 - 3	0	0.0	36	8.1	19	6.1	12	1.6	67	4.1
3 - 4	0	0.0	15	3.4	12	3.8	7	0.9	34	2.1
4 - 5	0	0.0	12	2.7	5	1.6	2	0.3	19	1.2
5 - 6	2	2.1	5	1.1	8	2.5	12	1.6	27	1.7
6 - 7	1	1.0	2	0.4	5	1.6	20	2.6	28	1.7
7 - 8	4	4.3	5	1.1	8	2.5	32	4.2	49	3.0
8 - 9	3	3.2	2	0.4	9	2.9	23	3.0	37	2.3
9 - 10	1	1.0	1	0.2	6	1.9	22	2.9	30	1.8
10 - 11	3	3.2	0	0.0	3	1.0	20	2.6	26	1.6
11 - noon	5	5.3	2	0.4	8	2.5	35	4.5	50	3.1
noon - 1 p.m.	6	6.4	1	0.2	5	1.6	35	4.5	47	2.9
1 - 2	4	4.3	4	0.9	8	2.5	32	4.2	48	3.0
2 - 3	7	7.4	8	1.8	12	3.8	46	5.8	73	4.5
3 - 4	9	9.6	8	1.8	15	4.8	51	6.6	83	5.1
4 - 5	6	6.4	19	4.3	12	3.8	64	8.3	101	6.2
5 - 6	8	8.5	22	4.9	14	4.5	53	6.9	97	6.0
6 - 7	11	11.7	23	5.1	14	4.5	44	5.7	92	5.7
7 - 8	11	11.7	31	6.9	23	7.3	63	8.2	128	7.9
8 - 9	6	6.4	33	7.4	10	3.2	46	6.0	95	5.8
9 - 10	3	3.2	41	9.2	15	4.8	39	5.1	98	6.0
10 - 11	3	3.2	36	8.1	22	7.0	36	4.7	97	6.0
11 - midnight	1	1.0	39	8.7	23	7.3	27	3.5	90	5.5
Total	94	100	447	100	314	100	770	100	1625	100

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A16,

PERCENTAGE DISTRIBUTION OF FATAL PLUS NON-FATAL INJURY COLLISIONS OVER THE TIME OF DAY BY THE ALCOHOL STATUS OF THE COLLISIONS FOR ONTARIO, 1973

TIME OF DAY	NORMAL		ALCOHOL		NOT KNOWN		OTHER		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Midnight to 1 a.m.	59	1.2	1229	9.6	150	8.1	1113	2.4	2551	3.8
1 - 2 a.m.	18	0.4	1886	14.7	141	7.6	1006	2.1	3051	4.6
2 - 3	7	0.1	990	7.7	105	5.7	622	1.3	1724	2.6
3 - 4	3	0.1	469	3.6	53	2.9	335	0.7	860	1.3
4 - 5	3	0.1	259	2.0	31	1.7	221	0.5	514	0.8
5 - 6	2	0.0	139	1.1	32	1.7	267	0.6	440	0.7
6 - 7	61	1.3	105	0.8	25	1.4	766	1.6	957	1.4
7 - 8	127	2.6	68	0.5	37	2.0	1811	3.8	2043	3.1
8 - 9	304	6.2	50	0.4	42	2.3	2387	5.0	2783	4.2
9 - 10	104	2.1	47	0.4	34	1.8	1550	3.3	1735	2.6
10 - 11	142	2.9	49	0.4	35	1.9	1761	3.7	1987	3.0
11 - noon	229	4.7	82	0.6	43	2.3	2210	4.7	2564	3.8
noon - 1 p.m.	421	8.6	141	1.1	63	3.4	2546	5.4	3171	4.7
1 - 2	283	5.8	161	1.3	65	3.5	2705	5.7	3214	4.8
2 - 3	250	5.1	209	1.6	80	4.3	2815	5.9	3354	5.0
3 - 4	500	10.3	312	2.4	87	4.7	3811	8.0	4710	7.0
4 - 5	664	13.6	466	3.6	103	5.6	4715	10.0	5948	8.9
5 - 6	547	11.2	654	5.1	87	4.7	4129	8.7	5417	8.1
6 - 7	382	7.8	691	5.4	110	5.9	2883	6.1	4066	6.1
7 - 8	310	6.4	842	6.5	100	5.4	2855	6.0	4107	6.1
8 - 9	214	4.4	888	6.9	94	5.1	2185	4.6	3381	5.0
9 - 10	105	2.2	925	7.2	108	5.8	1723	3.6	2861	4.3
10 - 11	77	1.6	1022	7.9	94	5.1	1511	3.2	2704	4.0
11 - midnight	61	1.3	1180	9.2	131	7.1	1446	3.1	2818	4.2
Total	4873	100	12864	100	1850	100	47373	100	66960	100

Source: Computer search of Ministry of Transportation and Communications, Ontario, Collision File.

TABLE A17.

ALCOHOL INVOLVED HUMAN-DAMAGE COLLISIONS FOR ONTARIO BY COUNTY, 1973.

(Fatal and Non-Fatal Injury Collisions Combined and Fatal Collisions Separately.)

COUNTY, DISTRICT OR REGIONAL MUNICIPALITY	NUMBER OF ALCOHOL INVOLVED COLLISIONS		ALCOHOL COLLISIONS AS A PERCENT OF ALL COLLISIONS		COUNTY POPULATION (1971)	COLLISION RATE PER 1,000 POPULATION	
	F+NF*	F**	F+NF*	F**		F+NF*	F**
York	2611	36	14.3	19.3	2,206,822	1.18	.02
Hamilton-Wentworth	664	7	15.7	16.7	392,933	1.69	.02
Essex	550	28	19.3	36.8	299,318	1.84	.09
Middlesex	545	11	19.6	23.9	272,789	2.00	.04
Ottawa-Carleton	521	21	14.9	32.8	446,246	1.17	.05
Niagara	499	15	17.6	21.1	337,292	1.48	.04
Simcoe	459	17	24.7	23.9	159,187	2.88	.11
Peel	441	11	17.1	19.6	264,542	1.67	.04
Waterloo	403	7	19.1	14.6	252,462	1.60	.03
Sudbury	358	15	25.2	35.7	186,844	1.92	.08
Thunder Bay	357	10	23.9	27.0	133,484	2.67	.07
Halton	326	10	18.5	29.4	190,034	1.72	.05
Ontario	325	6	17.8	15.4	190,524	1.71	.03
Northumberland & Durham	262	11	23.1	28.2	93,005	2.82	.12
Algoma	258	12	23.6	34.3	108,731	2.37	.11
Lambton	235	19	24.3	45.2	109,494	2.15	.17
Kent	229	12	23.6	38.7	96,698	2.37	.12

* *Fatal and Non-Fatal*
** *Fatal*

TABLE A17 (cont'd)

ALCOHOL INVOLVED HUMAN-DAMAGE COLLISIONS FOR ONTARIO BY COUNTY, 1973.

(Fatal and Non-Fatal Injury Collisions Combined and Fatal Collisions Separately.)

COUNTY, DISTRICT OR REGIONAL MUNICIPALITY	NUMBER OF ALCOHOL INVOLVED COLLISIONS		ALCOHOL COLLISIONS AS A PERCENT OF ALL COLLISIONS		COUNTY POPULATION (1971)	COLLISION RATE PER 1,000 POPULATION	
	F+NF*	F**	F+NF*	F**		F+NF*	F**
Hastings	208	12	24.2	33.3	92,825	2.24	.13
Frontenac	205	8	24.6	27.6	96,651	2.12	.08
Peterborough	201	12	21.8	33.3	84,154	2.39	.14
Leeds and Grenville	186	10	25.6	28.6	72,918	2.55	.14
Wellington	183	5	22.7	14.3	106,388	1.72	.05
Renfrew	169	5	25.8	19.2	80,080	2.11	.06
Oxford	168	7	23.1	25.0	78,018	2.15	.09
Stormont, Dundas & Glengarry	158	12	24.1	42.9	93,780	2.75	.13
Bruce	157	7	33.6	30.4	44,389	3.54	.16
Brant	152	11	21.5	44.0	88,429	1.72	.12
Huron	145	7	33.3	50.0	52,007	2.79	.13
Norfolk	144	16	32.4	44.4	52,801	2.73	.30
Nipissing	140	4	19.3	12.9	69,800	2.01	.06
Cochrane	136	11	23.3	39.3	82,085	1.66	.13
Kenora	136	6	28.9	26.1	34,047	3.99	.18
Grey	129	6	27.1	24.0	64,947	1.99	.09
Elgin	120	3	22.4	14.3	63,257	1.90	.05
Muskoka	107	5	23.0	17.2	29,697	3.60	.17
Perth	105	6	22.1	35.3	61,754	1.70	.10

* *Fatal and Non-Fatal*
** *Fatal*

TABLE A17 (cont'd)

ALCOHOL INVOLVED HUMAN-DAMAGE COLLISIONS FOR ONTATIO BY COUNTY, 1973.
(Fatal and Non-Fatal Injury Collisions Combined and Fatal Collisions Separately.)

COUNTY, DISTRICT OR REGIONAL MUNICIPALITY	NUMBER OF ALCOHOL INVOLVED COLLISIONS		ALCOHOL COLLISIONS AS A PERCENT OF ALL COLLISIONS		COUNTY POPULATION (1971)	COLLISION RATE PER 1,000 POPULATION	
	F+NF*	F**	F+NF*	F**		F+NF*	F**
Lanark	103	5	27.9	29.4	39,731	2.59	.13
Prescott and Russell	94	6	22.7	22.2	43,343	2.17	.14
Victoria	90	5	26.0	50.0	32,645	2.76	.15
Lennox and Addington	86	7	28.8	33.3	27,717	3.10	.25
Haldimand	78	4	28.8	33.3	30,970	2.52	.13
Timiskaming	72	4	23.8	44.4	41,748	1.72	.10
Parry Sound	72	4	18.5	23.5	24,080	2.99	.17
Dufferin	68	3	25.6	33.3	20,672	3.29	.15
Rainy River	52	3	31.0	50.0	22,174	2.35	.14
Prince Edward	50	2	30.5	33.3	20,114	2.49	.10
Manitoulin	49	2	50.0	100.0	6,898	7.10	.29
Haliburton	48	1	24.6	25.0	8,933	5.37	.11
All of Ontario	12,864	447	19.2	27.5	7,800,000	1.65	.06

**Fatal and Non-Fatal*
***Fatal*

Source: Computer Search of Ministry of Transportation and Communications, Ontario, Collision File

TABLE A18,

CONDITION OF DRIVERS IN FATAL COLLISIONS 1967 TO 1973 (ONTARIO)

YEAR	APPARENTLY NORMAL		ABILITY IMPAIRED		HAD BEEN DRINKING		OTHER		NOT KNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1967	1,355	66.6	148	7.3	300	14.7	25	1.2	208	10.2	2,036	100
1968	1,316	67.7	226	11.6	235	12.1	22	1.2	145	7.4	1,944	100
1969	1,374	66.9	261	12.7	257	12.5	14	0.7	149	7.2	2,055	100
1970	1,251	65.6	246	12.9	219	11.5	6	0.3	186	9.7	1,908	100
1971	1,383	62.6	238	10.8	271	12.3	29	1.3	287	13.0	2,208	100
1972	1,473	61.2	300	12.5	321	13.3	18	0.7	296	12.3	2,408	100
1973	1,483	60.3	312	12.7	316	12.8	28	1.1	322	13.1	2,461	100

Source: *Highway Traffic Collisions, 1967, 1968, 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario.

TABLE A19,

CONDITION OF DRIVERS IN ALL COLLISIONS1967 TO 1973 (ONTARIO)

YEAR	APPARENTLY NORMAL		ABILITY IMPAIRED		HAD BEEN DRINKING		OTHER		NOT KNOWN		TOTAL	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1967	214,529	88.0	4,509	1.8	15,235	6.2	1,531	0.6	7,977	3.3	243,781	100
1968	229,143	88.2	4,768	1.8	15,947	6.1	1,585	0.6	8,379	3.2	259,822	100
1969	249,465	87.8	4,920	1.7	17,406	6.1	1,529	0.5	10,838	3.8	284,158	100
1970	213,721	88.5	5,940	2.5	12,387	5.1	1,086	0.5	8,269	3.4	241,403	100
1971	235,796	86.9	7,054	2.6	14,876	5.5	1,780	0.7	11,778	4.3	271,284	100
1972	276,820	87.0	8,121	2.5	18,709	5.9	2,232	0.7	12,403	3.9	318,285	100
1973	280,416	87.1	8,707	2.7	20,072	6.2	2,495	0.8	10,476	3.2	322,126	100

Source: *Highway Traffic Collisions, 1967, 1968, 1969, 1970, 1971, 1972, 1973*, Ministry of Transportation and Communications, Ontario

TABLE A20,

DRINKING DRIVERS* INVOLVED IN COLLISIONS BY AGE GROUP, 1967 TO 1973 (ONTARIO)

AGE GROUP	1967		1968		1969		1970		1971		1972		1973	
Under 16 (Illegal)	12	0.1%	15	0.1%	10	——%	14	0.1%	35	0.2%	35	0.1%	51	0.2%
16 - 19 years	1089	5.5	1196	5.8	1484	6.6	1259	6.9	2277	10.4	3623	13.5	4436	15.4
20 - 24	4033	20.4	4498	21.7	5276	23.6	4247	23.1	5179	23.6	6228	23.2	6952	24.2
25 - 34	5731	29.0	5929	28.6	6285	28.2	5123	28.0	5918	27.0	7264	27.1	7474	26.0
35 - 44	4466	22.6	4561	22.0	4506	20.2	3660	20.0	4086	18.6	4626	17.3	4540	15.8
45 - 54	2803	14.2	2858	13.8	2954	13.2	2393	13.0	2746	12.5	3172	11.8	3310	11.5
55 - 64	1217	6.2	1267	6.1	1315	5.9	1128	6.1	1247	5.7	1405	5.2	1487	5.2
65 and over	298	1.5	336	1.6	387	1.7	307	1.7	299	1.3	369	1.4	407	1.4
Age not stated	95	0.5	55	0.3	109	0.5	194	1.1	143	0.7	108	0.4	122	0.4
Total	19744	100%	20715	100%	22326	100%	18325	100%	21930	100%	26830	100%	28779	100%

* *Ability Impaired - Alcohol or Had been drinking.*

Source: *Highway Traffic Collisions, 1967, 1968, 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario.

TABLE A21,

OCCURRENCE OF ALCOHOL IN FATALLY INJURED DRIVERS* 1968 TO 1973 IN ONTARIO

YEAR	ALCOHOL NOT PRESENT		ALCOHOL PRESENT						TOTAL OF DRIVERS	
			ABILITY IMPAIRED		HAD BEEN DRINKING		TOTAL			
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1968	338	55.4	188	30.8	84	13.8	272	44.6	610	100
1969	369	54.0	231	33.8	83	12.2	314	46.0	683	100
1970	284	50.4	182	32.3	97	17.2	279	49.6	563	100
1971	337	53.8	196	31.3	93	14.9	289	46.2	626	100
1972	355	49.9	247	34.7	109	15.3	356	50.1	711	100
1973	343	48.8	250	35.6	110	15.6	360	51.2	703	100

* *Does not include cases where no judgement of alcohol occurence was provided.*

Source: *Highway Traffic Collisions 1968, 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario.

TABLE A22,
ACCURACY OF POLICE REPORT ON CONDITION OF FATALLY INJURED DRIVERS AS DETERMINED BY LABORATORY ANALYSIS OF BLOOD, ONTARIO 1973

POLICE JUDGEMENT	NO. OF FATALLY INJURED DRIVERS	RESULTS OF LABORATORY ANALYSIS							
		NO ALCOHOL PRESENT		HAD BEEN DRINKING		IMPAIRED		NOT KNOWN*	
		NO. OF DRIVERS	% OF DRIVERS	NO. OF DRIVERS	% OF DRIVERS	NO. OF DRIVERS	% OF DRIVERS	NO. OF DRIVERS	NO. OF DRIVERS
No Alcohol Present	134	64	47.8	5	3.7	5	3.7	60	44.8
Had Been Drinking	116	1	0.9	17	14.7	73	62.9	25	21.6
Impaired	36	2	5.6	0	0	28	77.8	6	16.7
Not Known	543	222	40.9	43	7.9	161	29.7	117	21.5
Total	829	289	34.9	65	7.8	267	32.2	208	25.1

**Laboratory analysis not available.*

Source: Ministry of Transportation and Communications, Ontario, Collision File and Chief Coroner's File, Ontario.

TABLE A23,

NUMBER OF PERSONS WHO RECEIVED A MANDATORY SUSPENSION OF THEIR DRIVING PRIVILEGES UNDER THE HIGHWAY TRAFFIC ACT AS A RESULT OF A CONVICTION FOR DRUNKEN DRIVING IN ONTARIO, 1967 to 1973

CONVICTION	1967	1968	1969	1970	1971	1972	1973
Driving While Intoxicated* Section 20 H.T.A.	368	351	375	24	2	——	——
Impaired Driving** Section 21 H.T.A.	11,381	12,445	12,363	8,481	10,706	14,614	18,655
Blood-Alcohol Over .08** Section 21 H.T.A.	——	——	——	4,694	6,678	10,461	13,595
Failure to Provide a Breath Sample** Section 21 H.T.A.	——	——	——	602	1,420	2,823	3,032
All Alcohol Offences	11,749	12,796	12,738	13,801	18,806	27,898	35,282

* *Section 20 H.T.A. referred to Section 222 C.C.C., "Driving While Intoxicated", until its repeal December 1, 1969.*

** *Over the period 1967 to 1969, Section 21 of the H.T.A. referred to Section 223 C.C.C., "Impaired Driving". When the Criminal Code was revised December 1, 1969, Section 21 of the H.T.A. then referred to revised Section 222 which covered "Impaired Driving" and Sections 223 and 224 which covered the two new offences "Blood-Alcohol over .08" and "Failure to Provide a Breath Sample". These three offences are now Sections 234, 235 and 236 of C.C.C., respectively. (Section 21 H.T.A. also covers dangerous driving but the above figures do not include suspensions as a result of a dangerous driving conviction.)*

TABLE A24,

NUMBER OF PERSONS WHOSE DRIVER'S LICENSE WAS SUSPENDED BY THE COURT AS PART OF THE PENALTY FOR DRUNKEN DRIVING IN ONTARIO, 1967 TO 1973.

ALCOHOL OFFENSES	1967	1968	1969	1970	1971	1972	1973
Driving While Intoxicated* Section 222 C.C.C.	154	83	102	13	1	––	––
Impaired Driving** Section 234 C.C.C.	1973	1613	1591	5635	5719	4547	2451
Blood Alcohol Over .08*** Section 235 C.C.C.	––	––	––	1888	2358	1854	742
Failure to Provide a Breath Sample*** Section 236 C.C.C.	––	––	––	177	255	309	172
All Alcohol Offenses	2127	1696	1693	7713	8333	6710	3365

* *Repealed December 1, 1969.*

** *Section 233 from 1967 to 1969, Revised to Section 222 December 1969 and subsequently changed to Section 234.*

*** *New Offenses December 1, 1969 instituted as Sections 223 and 224, and subsequently changed to Section 235 and 236, respectively.*

Source: *Annual Report 1966-67, 1967-68, 1968-69, 1970,* Ministry of Transportation and Communications, Ontario.
Statistics for 1971-1973 provided by the Driver Control Section of the Ministry of Transportation and Communications, Ontario.

TABLE A25,

DRIVERS INTERVIEWED AND CHARGED UNDER SECTIONS 234, 235, and 236 OF THE CRIMINAL CODE OF CANADA, 1969 - 1973

YEAR	NO. OF LICENSED DRIVERS (a)	NO. OF BREATHALYSER INTERVIEWS (b)	NO. OF DRIVERS CHARGED (c)	% OF INTERVIEWED DRIVERS CHARGED (d)	% OF LICENSED DRIVERS INTERVIEWED (e)	% OF LICENSED DRIVERS CHARGED (f)
1973	3,841,628	45,835	41,635	90.84	1.19	1.08
1972	3,688,541	39,814	35,979	90.37	1.08	.98
1971	3,563,197	34,719	31,726	91.38	.97	.89
1970	3,422,892	29,716	27,455	92.39	.87	.80
1969	3,247,979	18,042	16,035	88.88	.56	.49

Source: *Highway Traffic Collisions 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario. Internal Report of the Public Safety Division, *Breathalyzer Programme 1973,* The Centre of Forensic Sciences, Ministry of the Solicitor General.

TABLE A26,

DRIVERS CHARGED UNDER SECTIONS 234, 235, and 236 OF THE CRIMINAL CODE OF CANADA AND IMPAIRED DRIVERS INVOLVED IN COLLISIONS, 1969 – 1973.

YEAR	NO. OF LICENSED DRIVERS (a)	NO. OF DRIVERS CHARGED (b)	% OF LICENSED DRIVERS CHARGED (c)	NO. OF IMPAIRED DRIVERS INVOLVED IN COLLISIONS (d)	% OF LICENSED DRIVERS IMPAIRED AND INVOLVED IN COLLISIONS (e)	NO. OF IMPAIRED DRIVERS APPREHENDED FOR EACH IMPAIRED DRIVER INVOLVED IN COLLISION (f)
1973	3,841,628	41,635	1.08	8,707	.23	4.78
1972	3,688,541	35,979	.98	8,121	.22	4.43
1971	3,563,197	31,726	.89	7,054	.20	4.50
1970	3,422,892	27,455	.80	5,940	.17	4.62
1969	3,247,979	16,035	.49	4,020	.12	3.99

Source: *Highway Traffic Collisions 1969, 1970, 1971, 1972, 1973,* Ministry of Transportation and Communications, Ontario. Internal Report of the Public Safety Division, *Breathalyzer Programme 1973,* The Centre of Forensic Sciences, Ministry of the Solicitor General.

TABLE A27,

CONVICTIONS* AND SENTENCES UNDER SECTIONS 234, 235, AND 236 OF THE CANADA CRIMINAL CODE (C.C.C.) ONTARIO 1971 AND 1972

OFFENCE	TOTAL CONVICTIONS		SENTENCE				
				SUSPENDED SENTENCE			
	MALE	FEMALE	FINE	WITH PROBATION	WITHOUT PROBATION	PRISON	OTHER DISPOSITION
Driving while ability to drive is impaired (234)							
1971	16,185	332	15,555	13	14	700	235
1972	18,122	420	17,184	17	8	866	467
Driving with more than 80 mgs. of alcohol in the blood (236)							
1971	8,817	136	8,756	3	5	73	116
1972	11,945	202	11,532	4	6	150	255
Failure or refusal to provide breath sample (235)							
1971	1,829	29	1,780	4	7	37	30
1972	3,074	63	3,006	4	5	84	38

**Number of convictions are not necessarily equal to number of convicted drivers.*

Source: Statistics Canada, Catalogue 85-201, 1970, 1971 and 1972.

APPENDIX B
FIGURES

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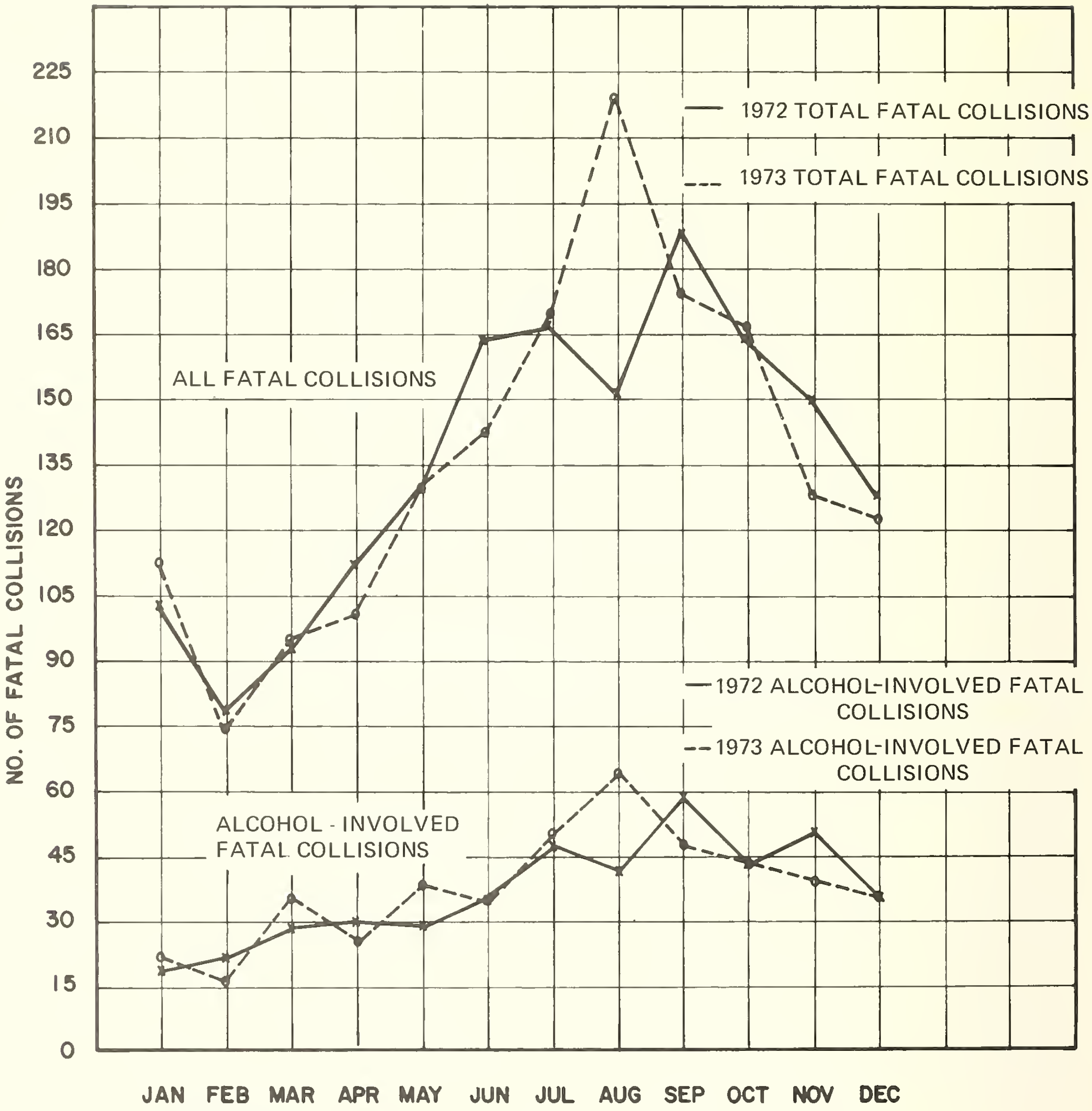


FIGURE B1,

ALL FATAL COLLISIONS AND ALCOHOL - INVOLVED FATAL COLLISIONS BY MONTH FOR ONTARIO 1972 AND 1973

SOURCE: COMPUTER SEARCH OF MINISTRY OF TRANSPORTATION AND COMMUNICATIONS COLLISION FILE

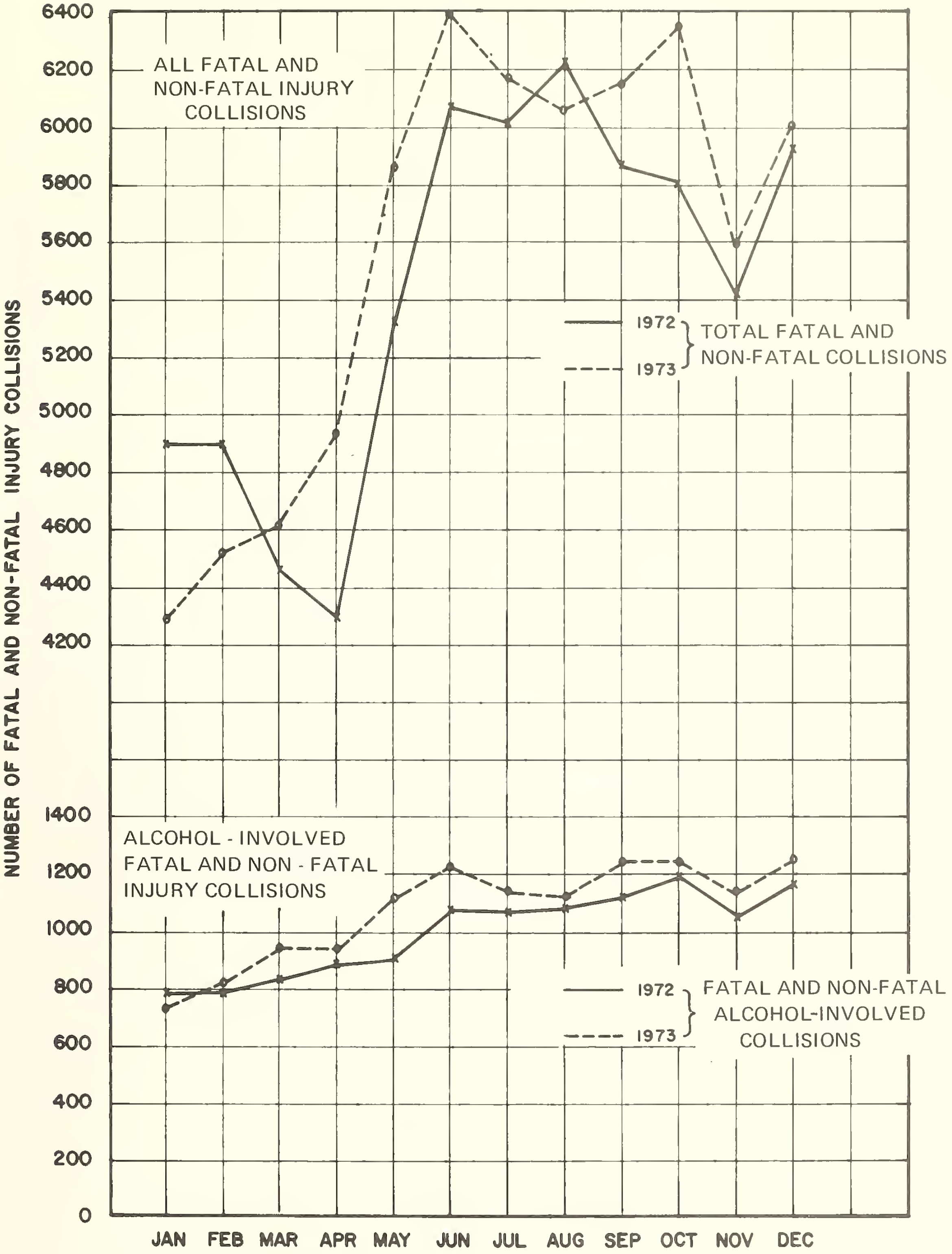


FIGURE B2,

ALL FATAL AND NON-FATAL INJURY COLLISIONS AND ALCOHOL—INVOLVED FATAL AND NON-FATAL INJURY COLLISIONS BY MONTH FOR ONTARIO, 1972 AND 1973.

SOURCE: COMPUTER SEARCH OF MINISTRY OF TRANSPORTATION AND COMMUNICATIONS COLLISION FILE

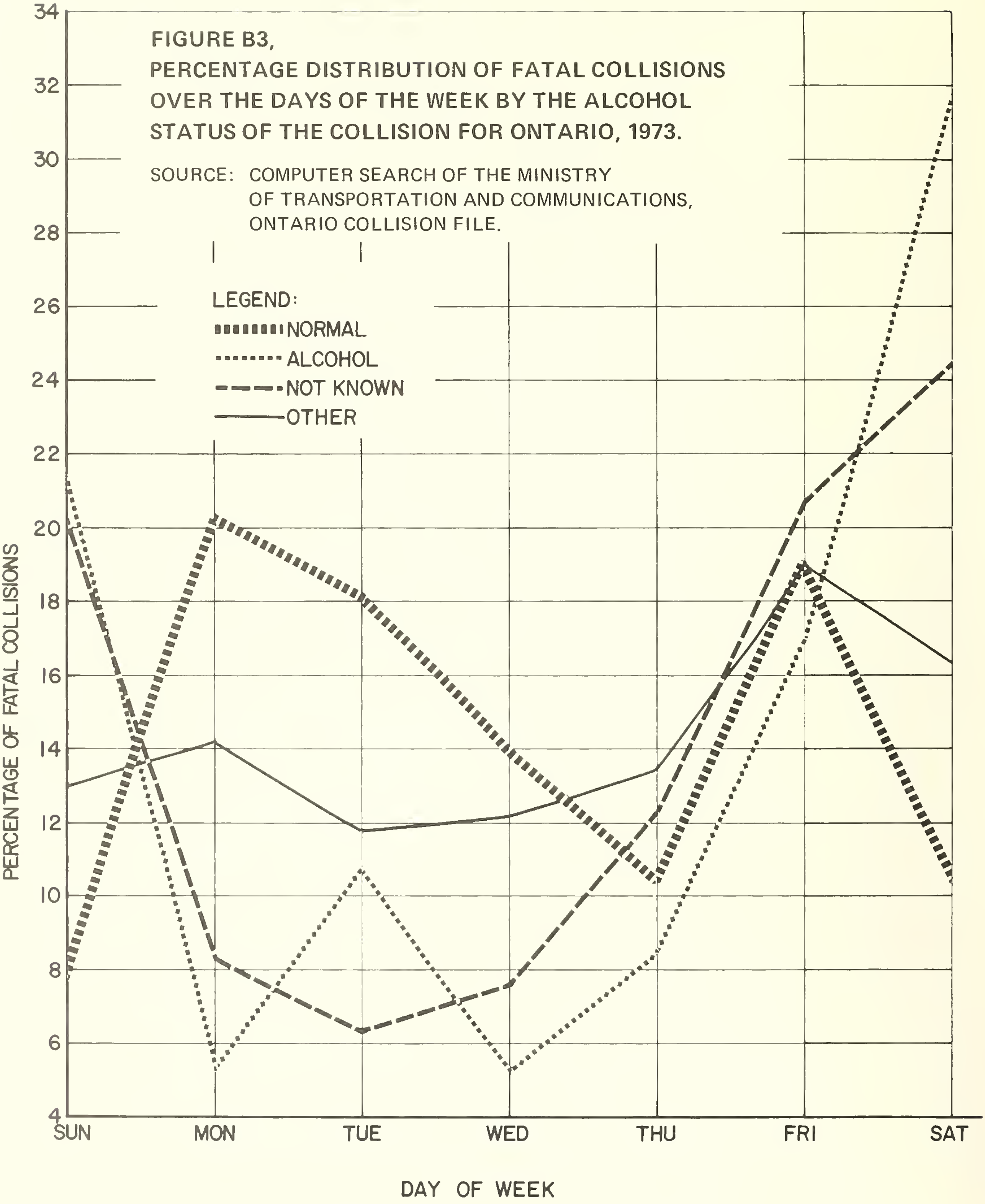


FIGURE B3,

PERCENTAGE DISTRIBUTION OF FATAL COLLISIONS OVER THE DAYS OF THE WEEK BY THE ALCOHOL STATUS OF THE COLLISION FOR ONTARIO, 1973.

SOURCE: COMPUTER SEARCH OF THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS, ONTARIO COLLISION FILE.

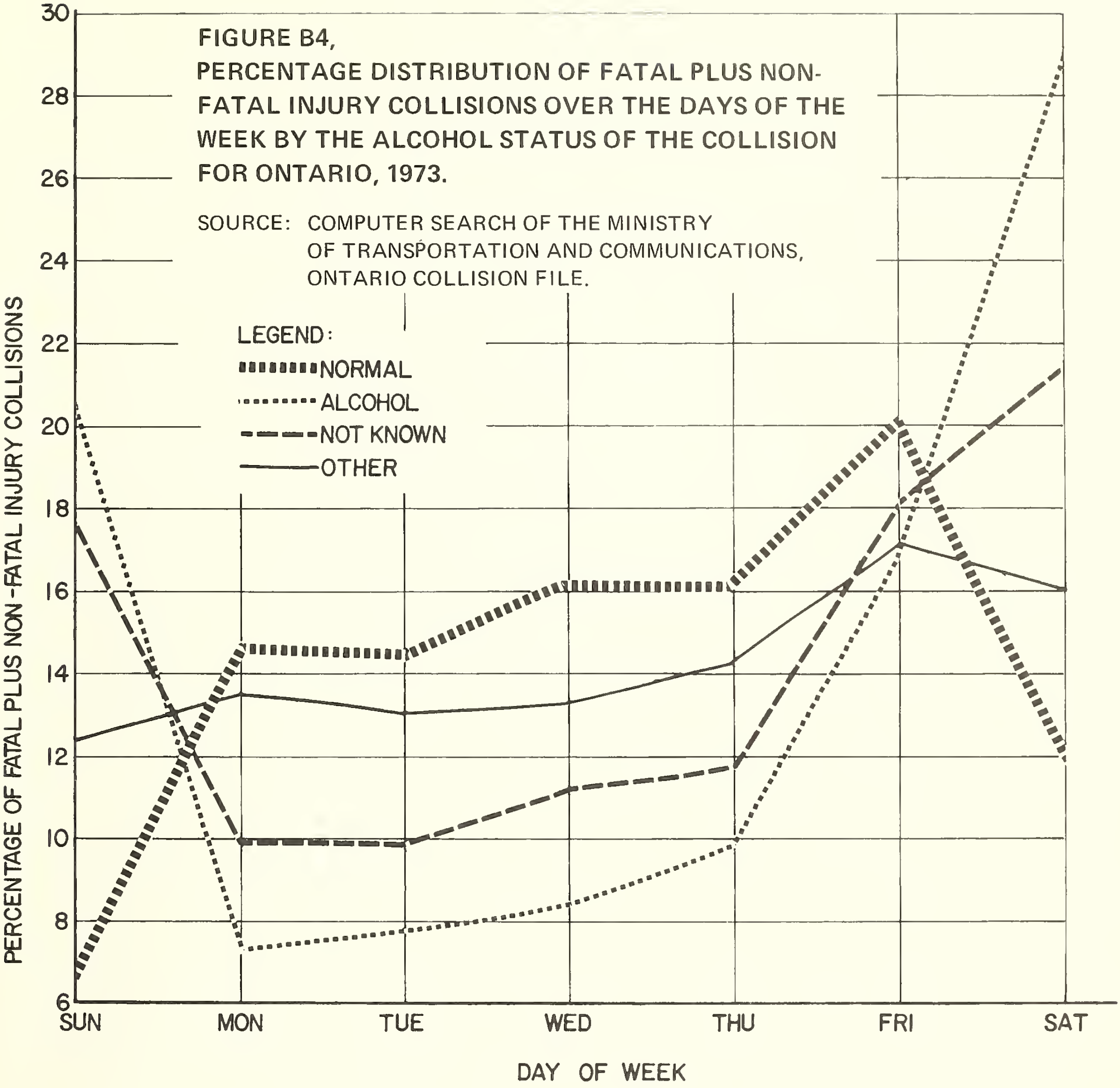


FIGURE B4,
PERCENTAGE DISTRIBUTION OF FATAL PLUS NON-FATAL INJURY COLLISIONS OVER THE DAYS OF THE WEEK BY THE ALCOHOL STATUS OF THE COLLISION FOR ONTARIO, 1973.

SOURCE: COMPUTER SEARCH OF THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS, ONTARIO COLLISION FILE.

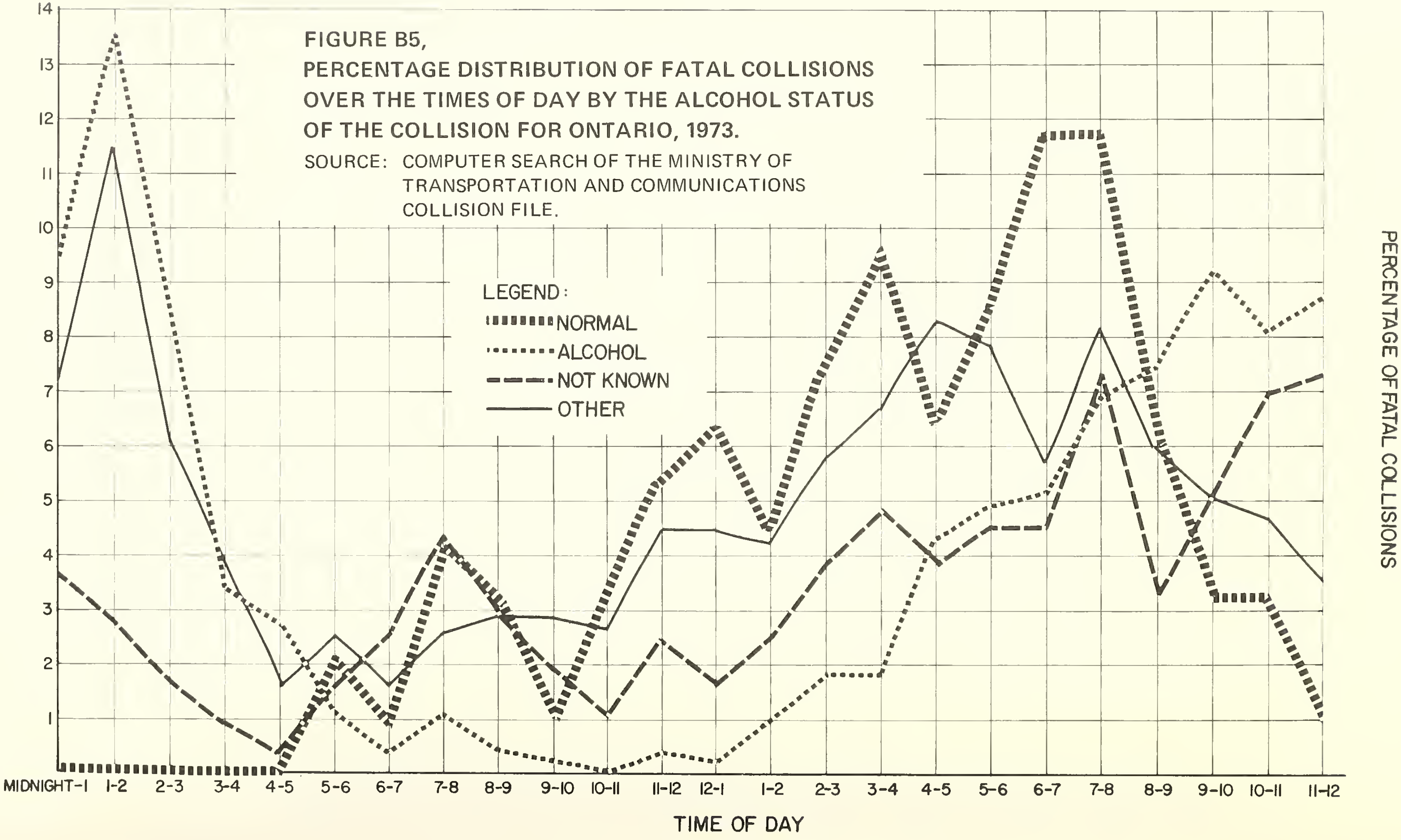


FIGURE B5,
PERCENTAGE DISTRIBUTION OF FATAL COLLISIONS OVER THE TIMES OF DAY BY THE ALCOHOL STATUS OF THE COLLISION FOR ONTARIO, 1973.

SOURCE: COMPUTER SEARCH OF THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS COLLISION FILE.

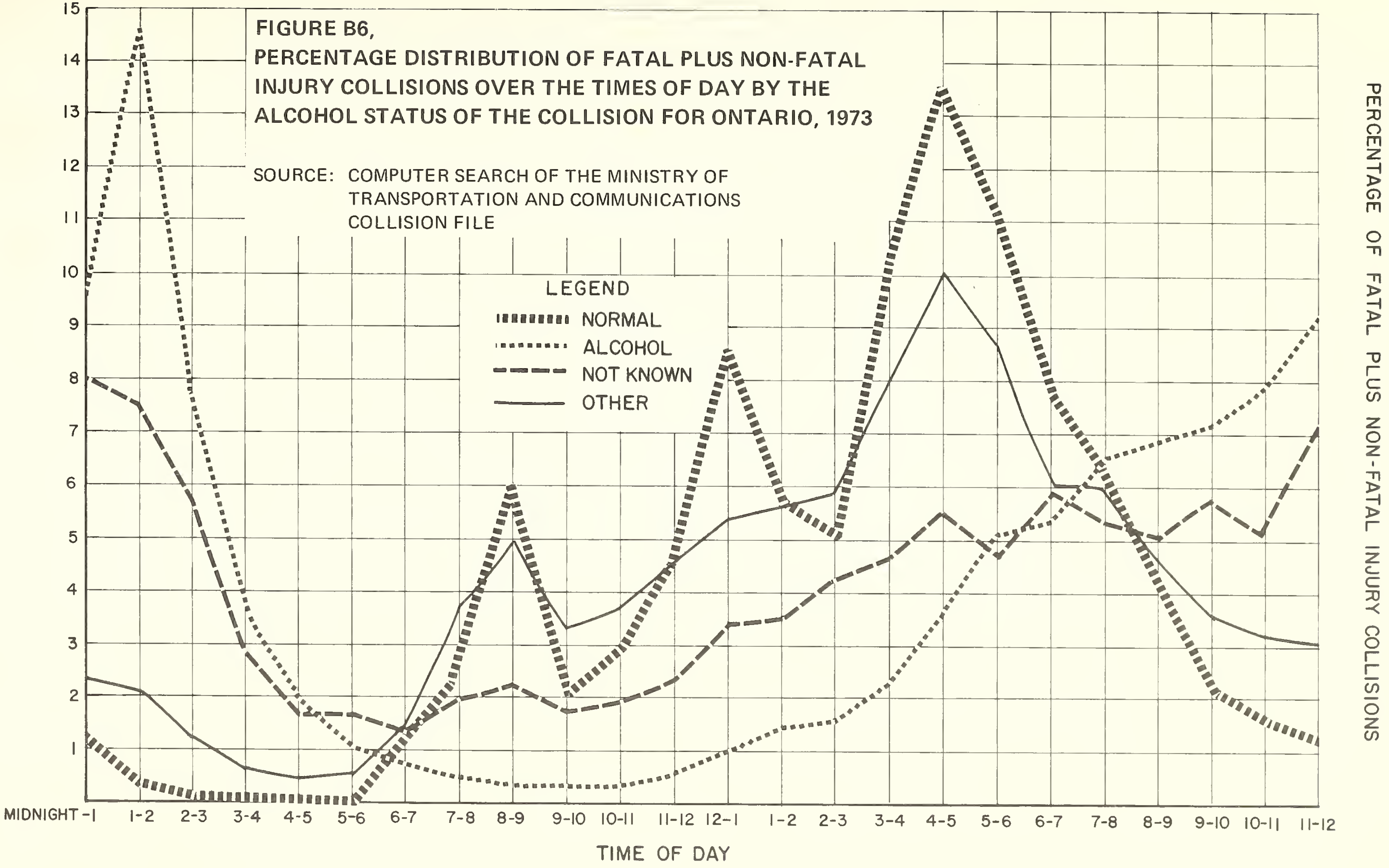


FIGURE B6,
PERCENTAGE DISTRIBUTION OF FATAL PLUS NON-FATAL INJURY COLLISIONS OVER THE TIMES OF DAY BY THE ALCOHOL STATUS OF THE COLLISION FOR ONTARIO, 1973

SOURCE: COMPUTER SEARCH OF THE MINISTRY OF TRANSPORTATION AND COMMUNICATIONS COLLISION FILE

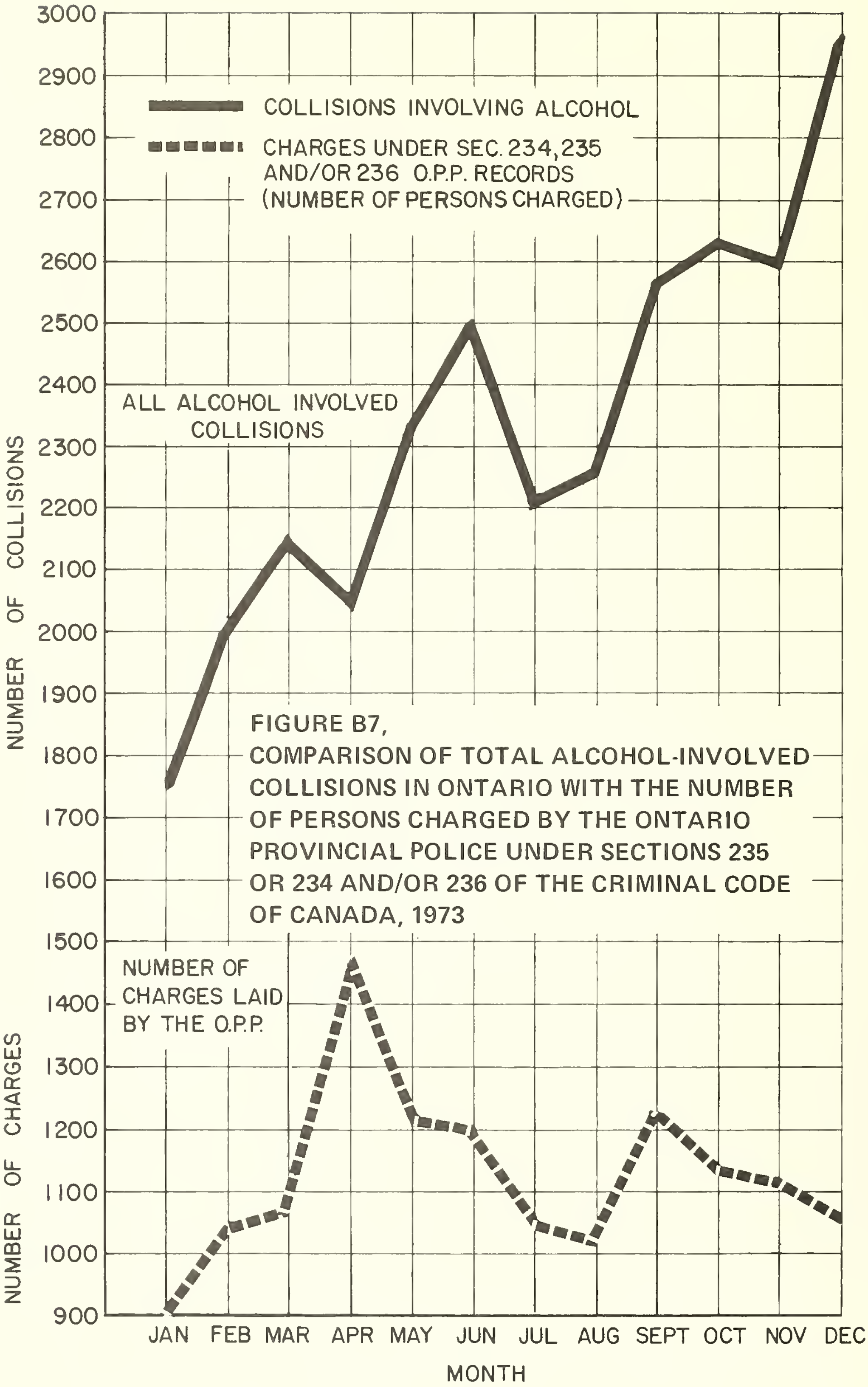
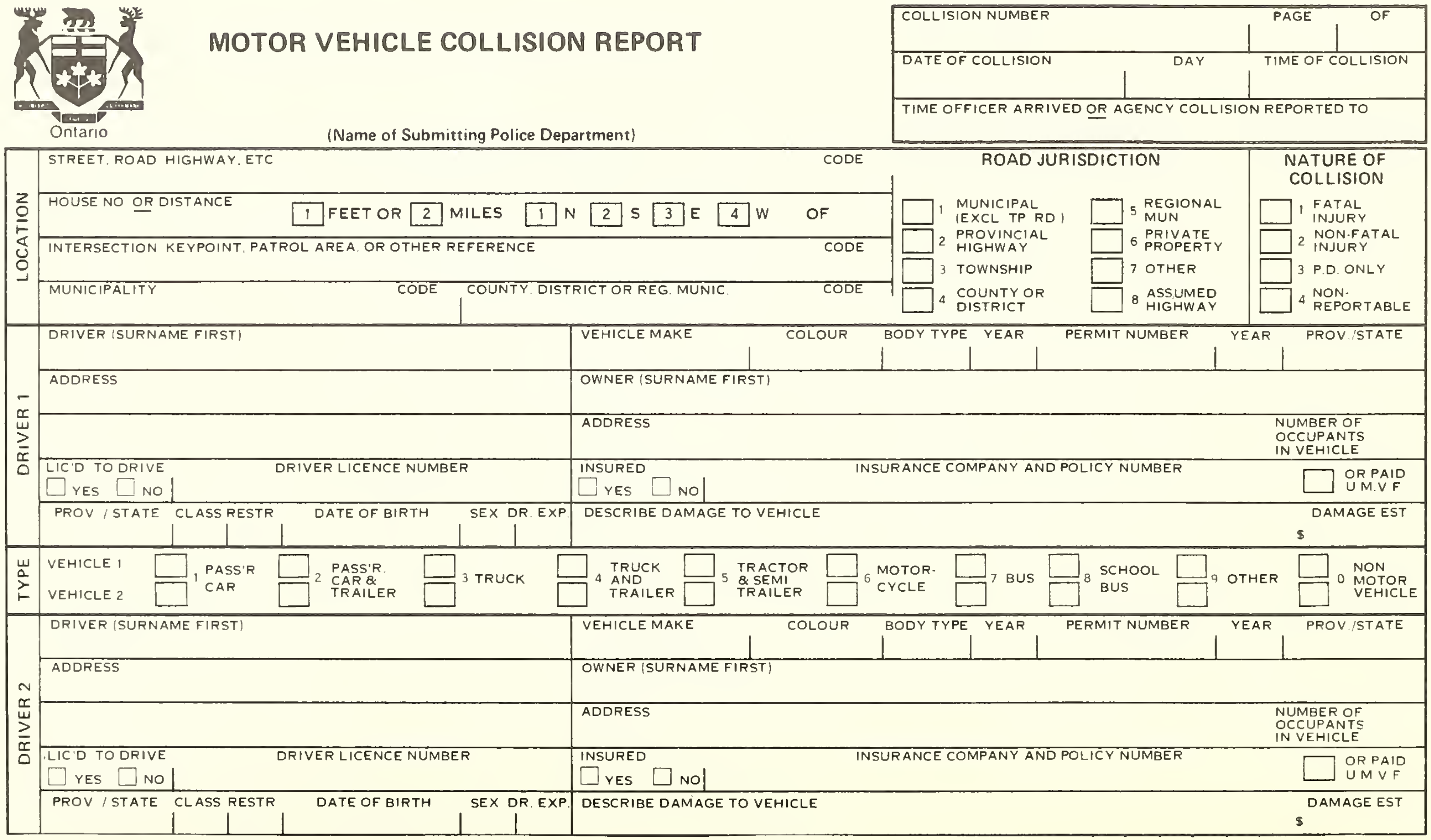


FIGURE B7,
COMPARISON OF TOTAL ALCOHOL-INVOLVED COLLISIONS IN ONTARIO WITH THE NUMBER OF PERSONS CHARGED BY THE ONTARIO PROVINCIAL POLICE UNDER SECTIONS 235 OR 234 AND/OR 236 OF THE CRIMINAL CODE OF CANADA, 1973

SOURCE: COMPUTER SEARCH OF THE ONTARIO MINISTRY OF TRANSPORTATION AND COMMUNICATIONS COLLISION FILE. ROUTINE MONTHLY REPORT PREPARED FOR STATISTICS CANADA BY THE CENTRAL RECORDS AND COMMUNICATIONS BRANCH OF THE ONTARIO PROVINCIAL POLICE ENTITLED "TRAFFIC ENFORCEMENT STATISTICS".

APPENDIX C
COLLISION REPORT

APPENDIX C –
MOTOR VEHICLE COLLISION REPORT



Ontario

MOTOR VEHICLE COLLISION REPORT

(Name of Submitting Police Department)

COLLISION NUMBER — PAGE — OF

DATE OF COLLISION — DAY — TIME OF COLLISION

TIME OFFICER ARRIVED OR AGENCY COLLISION REPORTED TO

LOCATION

STREET, ROAD HIGHWAY, ETC — CODE

HOUSE NO OR DISTANCE — ☐ 1 FEET OR ☐ 2 MILES ☐ 1 N ☐ 2 S ☐ 3 E ☐ 4 W OF

INTERSECTION KEYPOINT, PATROL AREA, OR OTHER REFERENCE — CODE

MUNICIPALITY — CODE — COUNTY, DISTRICT OR REG. MUNIC. — CODE

ROAD JURISDICTION

- ☐ 1 MUNICIPAL (EXCL TP RD)
- ☐ 2 PROVINCIAL HIGHWAY
- ☐ 3 TOWNSHIP
- ☐ 4 COUNTY OR DISTRICT
- ☐ 5 REGIONAL MUN
- ☐ 6 PRIVATE PROPERTY
- ☐ 7 OTHER
- ☐ 8 ASSUMED HIGHWAY

NATURE OF COLLISION

- ☐ 1 FATAL INJURY
- ☐ 2 NON-FATAL INJURY
- ☐ 3 P.D. ONLY
- ☐ 4 NON-REPORTABLE

DRIVER 1

DRIVER (SURNAME FIRST)

VEHICLE MAKE — COLOUR — BODY TYPE — YEAR — PERMIT NUMBER — YEAR — PROV./STATE

ADDRESS

OWNER (SURNAME FIRST)

ADDRESS — NUMBER OF OCCUPANTS IN VEHICLE

LIC'D TO DRIVE ☐ YES ☐ NO — DRIVER LICENCE NUMBER

INSURED ☐ YES ☐ NO — INSURANCE COMPANY AND POLICY NUMBER — ☐ OR PAID U.M.V.F

PROV / STATE — CLASS RESTR — DATE OF BIRTH — SEX — DR. EXP.

DESCRIBE DAMAGE TO VEHICLE — DAMAGE EST $

TYPE

	1 PASS'R CAR	2 PASS'R. CAR & TRAILER	3 TRUCK	4 TRUCK AND TRAILER	5 TRACTOR & SEMI TRAILER	6 MOTOR-CYCLE	7 BUS	8 SCHOOL BUS	9 OTHER	0 NON MOTOR VEHICLE
VEHICLE 1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VEHICLE 2	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

DRIVER 2

DRIVER (SURNAME FIRST)

VEHICLE MAKE — COLOUR — BODY TYPE — YEAR — PERMIT NUMBER — YEAR — PROV./STATE

ADDRESS

OWNER (SURNAME FIRST)

ADDRESS — NUMBER OF OCCUPANTS IN VEHICLE

LIC'D TO DRIVE ☐ YES ☐ NO — DRIVER LICENCE NUMBER

INSURED ☐ YES ☐ NO — INSURANCE COMPANY AND POLICY NUMBER — ☐ OR PAID U.M.V.F

PROV / STATE — CLASS RESTR — DATE OF BIRTH — SEX — DR. EXP.

DESCRIBE DAMAGE TO VEHICLE — DAMAGE EST $

APPENDIX C –
MOTOR VEHICLE COLLISION REPORT

DESCRIBE DAMAGE TO OTHER PROPERTY			AGE	SEX	KILLED	INJURED	DRIVER IN VEH. NO.	PASS IN VEH. NO.	PEDEST.	CYCLIST	M C DRIV. ON VEH NO	M C PASS ON VEH NO	OTHER
PERSON AND / OR AGENCY ADVISED		DAMAGE EST. $											
VICTIMS	1 NAME (SURNAME FIRST) AND ADDRESS	COUNTY, DISTRICT OR REG. MUNIC. CODE											
	2												
	3												
	4												

INVESTIGATING OFFICER'S BRIEF DESCRIPTION OF COLLISION

TRAFFIC CONTROL

OPERATIVE
YES NO
☐ ☐ 1 TRAFFIC SIGNAL
☐ ☐ 2 STOP SIGN
☐ ☐ 3 YIELD OR MERGE SIGN
☐ 4 PEDESTRIAN CROSSOVER
☐ 5 POLICE CONTROL
☐ 6 SCHOOL GUARD
☐ 7 NO CONTROL
☐ 8 OTHER

ROAD SURFACE CONDITION

☐ 1 DRY
☐ 2 WET
☐ 3 LOOSE SNOW
☐ 4 SLUSH
☐ 5 PACKED SNOW
☐ 6 ICE
☐ 7 MUD
☐ 8 LOOSE SAND OR GRAVEL

VISIBILITY

☐ 1 CLEAR
☐ 2 RAIN
☐ 3 SNOW, SLEET
☐ 4 FOG, MIST, SMOKE, DUST

LIGHT

☐ 1 DAYLIGHT
☐ 2 DAWN
☐ 3 DUSK
☐ 4 DARK

DIAGRAM OF COLLISION. INCLUDE ALL MEASUREMENTS. USE SOLID LINE FOR DIRECTION TO IMPACT. BROKEN LINE AFTER.

INDICATE NORTH BY ARROW ○

APPENDIX C –
MOTOR VEHICLE COLLISION REPORT

INDEPENDENT WITNESSES

NAME (SURNAME FIRST) AND ADDRESS

1

2

3

4

COLLISION NO

PAGE OF

ROAD LOCATION

☐ 1 NON-INTERSECTION
☐ 2 INTERSECTION-RELATED
☐ 3 AT INTERSECTION
☐ 4 INTERSECTION WITH PRIVATE DRIVE
☐ 5 AT RAILROAD CROSSING
☐ 6 UNDERPASS OR TUNNEL
☐ 7 OVERPASS OR BRIDGE
☐ 8 OTHER (SPECIFY)

ROAD CHARACTER

☐ 1 UNDIVIDED - ONE-WAY
☐ 2 UNDIVIDED - TWO-WAY
☐ 3 DIVIDED WITH RESTRAINING BARRIER
☐ 4 DIVIDED
☐ 5
☐ 6 COLLECTOR LANE
☐ 7 CORE LANE
☐ 8 TRANSFER LANE
☐ 9 RAMP

ROAD CONDITION

☐ 1 GOOD
☐ 2 UNDER REPAIR
☐ 3 UNDER CONSTRUCTION
☐ 4 DEFECTIVE (SPECIFY)
☐ 5 OTHER (SPECIFY)

☐ NUMBER OF LANES
☐ 1 MAXIMUM SPEED
☐ 2 POSTED ADVISORY SPEED

FIXED OBJECT
(PRIMARY IMPACT ONLY)

FEET FROM ROADWAY

☐ 1 GUIDE RAIL
☐ 2 POLE
☐ 3 TREE
☐ 4 CULVERT OR CURB
☐ 5 BRIDGE PIER OR WALL
☐ 6 POST
☐ 7 OTHER

ROAD TYPE

☐ 1 ASPHALT
☐ 2 GRAVEL OR CRUSHED STONE
☐ 3 CONCRETE
☐ 4 EARTH
☐ 5 OTHER

ROAD ALIGNMENT

☐ 1 STRAIGHT ON LEVEL
☐ 2 STRAIGHT ON HILL
☐ 3 CURVE ON LEVEL
☐ 4 CURVE ON HILL

PAVEMENT MARKINGS

☐ 1 GOOD
☐ 2 FADED
☐ 3 NOT VISIBLE
☐ 4 OBSCURED
☐ 5 NO MARKINGS

DIRECTION OF TRAVEL

VEH. 1 2

☐ ☐ 1 NORTH
☐ ☐ 2 SOUTH
☐ ☐ 3 EAST
☐ ☐ 4 WEST

SEAT BELTS

DRIVER 1 2

☐ ☐ 1 INSTALLED - NOT IN USE
☐ ☐ 2 INSTALLED - IN USE
☐ ☐ 3 INSTALLED - USE NOT KNOWN
☐ ☐ 4 NOT INSTALLED
☐ ☐ 5 NOT KNOWN

INJURY TYPE

VICTIM 1 2 3 4

☐ ☐ ☐ ☐ 1 FRACTURES, CONCUSSION, DECAPITATION, OTHER SERIOUS INJURIES
☐ ☐ ☐ ☐ 2 CUTS, BRUISES, BURNS
☐ ☐ ☐ ☐ 3 DROWNING, ASPHYXIATION
☐ ☐ ☐ ☐ 4 OTHER COMPLAINT OF PAIN

VEHICLE MANEUVER

1 2

☐ ☐ 1 GOING AHEAD
☐ ☐ 2 OVERTAKING
☐ ☐ 3 TURNING LEFT
☐ ☐ 4 TURNING RIGHT
☐ ☐ 5 MAKING "U" TURN
☐ ☐ 6 CHANGING LANES
☐ ☐ 7 MERGING
☐ ☐ 8 REVERSING
☐ ☐ 9 STOPPED OR PARKED
☐ ☐ 10 PULLING AWAY FROM SHOULDER OR CURB
☐ ☐ 11 PULLING ONTO SHOULDER OR INTO CURB
☐ ☐ 12 NOT KNOWN OR OTHER

APPARENT DRIVER ACTION

1 2

☐ ☐ 1 DRIVING PROPERLY
☐ ☐ 2 FOLLOWING TOO CLOSE
☐ ☐ 3 SPEED TOO FAST
☐ ☐ 4 IMPROPER TURN
☐ ☐ 5 DISOBEY TRAFFIC SIGNAL
☐ ☐ 6 DISOBEY STOP SIGN
☐ ☐ 7 FAIL TO YIELD RIGHT-OF-WAY
☐ ☐ 8 IMPROPER PASSING
☐ ☐ 9 LOST CONTROL
☐ ☐ 10 WRONG WAY ON ONE-WAY ROAD
☐ ☐ 11 NOT KNOWN
☐ ☐ 12 OTHER (SPECIFY)

PEDESTRIAN ACTION

1 2

☐ ☐ 1 CROSSING INTERSECTION WITH RIGHT-OF-WAY
☐ ☐ 2 CROSSING INTERSECTION WITHOUT RIGHT-OF-WAY
☐ ☐ 3 CROSSING INTERSECTION NO TRAFFIC CONTROL
☐ ☐ 4 CROSSING PED. CROSSOVER
☐ ☐ 5 WALKING ON ROADWAY WITH TRAFFIC
☐ ☐ 6 WALKING ON ROADWAY AGAINST TRAFFIC
☐ ☐ 7 ON SIDEWALK OR SHOULDER
☐ ☐ 8 COMING FROM BEHIND PARKED VEHICLE OR OBJECT
☐ ☐ 9 PLAYING OR WORKING ON HWY
☐ ☐ 10 RUNNING INTO ROADWAY
☐ ☐ 11 CROSSING THROUGH TRAFFIC
☐ ☐ 12 OTHER (SPECIFY)

APPENDIX C –
MOTOR VEHICLE COLLISION REPORT

DRIVER/PED. CONDITION

DR 1	DR 2	PED 1	PED 2	
☐	☐	☐	☐	1 NORMAL
☐	☐	☐	☐	2 HAD BEEN DRINKING
☐	☐	☐	☐	3 ABILITY IMPAIRED ALCOHOL
☐	☐	☐	☐	4 ABILITY IMPAIRED-DRUGS (STATE TYPE)
☐	☐	☐	☐	5 FATIGUE
☐	☐	☐	☐	6 MEDICAL OR PHYSICAL DEFECT (SPECIFY)
☐	☐	☐	☐	7 NOT KNOWN
☐	☐	☐	☐	8 OTHER (SPECIFY)

VEHICLE CONDITION

1	2	
☐	☐	1 NO APPARENT DEFECT
☐	☐	2 NOT KNOWN
☐	☐	3 SERVICE BRAKES DEFECTIVE
☐	☐	4 STEERING DEFECTIVE
☐	☐	5 TIRE PUNCTURE OR BLOWOUT
☐	☐	6 TIRE TREAD INSUFFICIENT
☐	☐	7 HEADLAMPS DEFECTIVE
☐	☐	8 OTHER LAMPS OR REFLECTORS DEFECTIVE
☐	☐	9 ENGINE CONTROLS DEF
☐	☐	10 WHEELS OR SUSPENSION DEF
☐	☐	11 VISION OBSCURED
☐	☐	12 OTHER (SPECIFY)

COLLISION INVOLVES

☐ 1 SINGLE MOTOR VEHICLE

OR

MOTOR VEHICLE AND

☐ 2 OTHER MOTOR VEHICLE/S
☐ 3 PEDESTRIAN
☐ 4 CYCLIST
☐ 5 RAILROAD TRAIN
☐ 6 STREET CAR
☐ 7 FARM TRACTOR
☐ 8 ANIMAL
☐ 9 OTHER (SPECIFY)

PRIMARY IMPACT TYPE

☐ 1 REAR END
☐ 2 ANGLE
☐ 3 TURNING MOVEMENT
☐ 4 SIDESWIPE
☐ 5 APPROACHING
☐ 6 ROLLOVER
☐ 7 OTHER

HIT AND RUN

DRIVER 1	DRIVER 2	
☐	☐	1 APPREHENDED
☐	☐	2 NOT APPREHENDED
☐		NO FURTHER ACTION OR ASSIGNED TO:

1 INJURED TAKEN TO - BY	RELATIVES NOTIFIED BY	
2		
3		
4		

BREATH TEST

DR 1	DR 2	
☐	☐	1 LOWEST READING (PERCENTAGE)
☐	☐	2 REFUSED TEST
☐	☐	3 OTHER BLOOD - ALCOHOL TEST

IF SCHOOL-AGE CHILD INVOLVED, INDICATE SCHOOL NAME

1 VEHICLE TAKEN TO - BY.	☐ HOLD	PERSON CHARGED, SECTION & ACT. U T T NO
2	☐ HOLD	

DATE OF REPORT	INVESTIGATING OFFICER	DIV./STAT./DET.	SUPERVISOR

ATTORNEY GENERAL'S
DEPARTMENT
ONTARIO